

# NENA Standard for Emergency Incident Data Object (EIDO)

**Abstract:** As agencies and regions move forward with implementing NG9-1-1 and IP based emergency communications systems, it is critical that they adhere to a standardized, industry neutral format for exchanging emergency Incident information between disparate manufacturer's systems located within one or more public safety agencies, and with other Incident stakeholders.



NENA Standard for Emergency Incident Data Object (EIDO)

NENA-STA-021.1a-2022

DSC Approval: 04/19/2022

PRC Approval: 09/29/2021

NENA Board of Directors Approval: 10/14/2021

ANSI Board of Standards Review Approved: 10/19/2021

Next Scheduled Review Date: 10/20/2024

Prepared by:

National Emergency Number Association (NENA) Agency Systems Committee, EIDO JSON Working Group

Published by NENA

Printed in USA



**© Copyright 2021-2022 National Emergency Number Association, Inc.**

## 1 Executive Overview

There are many Functional Elements (FEs) within an NG9-1-1 system that are used to process emergency calls. Some of these FEs may be within a specific agency, in another agency or elsewhere in an Emergency Services IP Network (ESInet). In many cases, an emergency call is related to, or results in the creation of an "Incident" as defined in NENA STA-010.2-2016 [3]. As public safety communication center personnel process emergency calls for service and their associated Incidents, new information about the Incidents is obtained. There are many sources available to communication center personnel for obtaining new Incident information during call handling, Incident creation, dispatch, Incident monitoring, and post Incident analysis processes. Newly gathered information, as well as changes in Incident status, must often be passed on to other FEs, other involved agencies, and frequently to non-emergency entities authorized to receive emergency Incident information. As agencies and regions move forward with implementing NG9-1-1 and IP based emergency communications systems, it is critical that they adhere to a standardized, industry-neutral format for exchanging emergency Incident information between disparate manufacturer's systems located within one or more public safety agencies, and with other Incident stakeholders.

## Table of Contents

<b>NENA STANDARD FOR EMERGENCY INCIDENT DATA OBJECT (EIDO)</b>	<b>1</b>
<b>1 EXECUTIVE OVERVIEW</b>	<b>2</b>
DOCUMENT TERMINOLOGY	7
INTELLECTUAL PROPERTY RIGHTS (IPR) POLICY	8
REASON FOR ISSUE/REISSUE	8
<b>2 DATA ASSOCIATED WITH AN EMERGENCY INCIDENT</b>	<b>10</b>
2.1 DATA COMPONENTS	10
2.2 DATA COMPONENT TABLE STRUCTURE	10
2.3 JSON REFERENCE DATA COMPONENT	12
2.4 EMERGENCY INCIDENT DATA OBJECT DATA COMPONENT	12
2.5 AGENT DATA COMPONENT	15
2.6 AGENCY DATA COMPONENT	17
2.7 SPLIT/MERGE DATA COMPONENT	19
2.8 LINK DATA COMPONENT	21
2.9 INCIDENT DATA COMPONENT	22
2.10 CALL DATA COMPONENT	27
2.11 CALL BACK DATA COMPONENT	32
2.12 UPDATED CALL BACK NUMBER DATA COMPONENT	33
2.13 DISPATCH DATA COMPONENT	34
2.14 DISPOSITION DATA COMPONENT	36
2.15 NOTES DATA COMPONENT	38
2.16 PERSON DATA COMPONENT	38
2.17 VEHICLE DATA COMPONENT	40
2.18 LOCATION DATA COMPONENT	42
2.19 ADDITIONAL DATA DATA COMPONENT	46
2.20 EMERGENCY RESOURCE DATA COMPONENT	48
2.21 ALARMS AND SENSORS DATA COMPONENT	54



<b>3</b>	<b>IANA ACTIONS.....</b>	<b>56</b>
3.1	AGENCY ROLE REGISTRY.....	56
3.2	INCIDENT TYPE – COMMON REGISTRY .....	56
3.3	INCIDENT STATUS-COMMON .....	66
3.4	REPORT NUMBER TYPE.....	67
3.5	COMMON DISPOSITION CODES .....	67
3.6	PERSON ROLE.....	72
3.7	VEHICLE RELATIONSHIP TYPE.....	73
3.8	LOCATION TYPE .....	74
3.9	PRIMARY UNIT STATUS-COMMON .....	75
3.10	SECONDARY UNIT STATUS-COMMON .....	76
3.11	EMERGENCY RESOURCE TYPE-COMMON.....	79
3.12	RESOURCE ATTRIBUTE .....	84
<b>4</b>	<b>IMPACTS, CONSIDERATIONS, ABBREVIATIONS, TERMS, AND DEFINITIONS .....</b>	<b>132</b>
4.1	OPERATIONS IMPACTS SUMMARY.....	132
4.2	TECHNICAL IMPACTS SUMMARY.....	132
4.3	SECURITY IMPACTS SUMMARY .....	132
4.4	RECOMMENDATION FOR ADDITIONAL DEVELOPMENT WORK .....	132
4.5	ANTICIPATED TIMELINE .....	133
4.6	COST FACTORS .....	133
4.7	COST RECOVERY CONSIDERATIONS.....	134
4.8	ADDITIONAL IMPACTS (NON-COST RELATED) .....	134
4.9	ABBREVIATIONS, TERMS, AND DEFINITIONS .....	134
<b>5</b>	<b>REFERENCES.....</b>	<b>138</b>
<b>6</b>	<b>EXHIBITS.....</b>	<b>139</b>
<b>APPENDIX A REQUIRED NIEM DATA ELEMENT THAT NEED TO BE SUPPORTED FOR EIDO COMPLIANCE.....</b>		<b>139</b>
<b>A.1</b>	<b>PERSON TYPE .....</b>	<b>140</b>
<b>A.2</b>	<b>VEHICLE TYPE.....</b>	<b>146</b>
<b>A.3</b>	<b>DATE TYPE .....</b>	<b>149</b>
<b>A.4</b>	<b>LOCATION TYPE.....</b>	<b>150</b>
<b>A.5</b>	<b>IMAGE TYPE.....</b>	<b>152</b>



<b>A.6</b>	<b>LENGTH MEASURE TYPE .....</b>	<b>153</b>
<b>A.7</b>	<b>INJURY TYPE .....</b>	<b>154</b>
<b>A.8</b>	<b>ORGANIZATION TYPE.....</b>	<b>154</b>
<b>A.9</b>	<b>IDENTIFICATION TYPE.....</b>	<b>156</b>
<b>A.10</b>	<b>STATUS TYPE .....</b>	<b>157</b>
<b>A.11</b>	<b>ADDRESS TYPE .....</b>	<b>158</b>
<b>A.12</b>	<b>AREA TYPE .....</b>	<b>159</b>
<b>A.13</b>	<b>CONTRACTINFORMATION TYPE.....</b>	<b>160</b>
<b>A.14</b>	<b>ENTITY TYPE.....</b>	<b>161</b>
<b>A.15</b>	<b>CROSSSTREET TYPE.....</b>	<b>161</b>
<b>A.16</b>	<b>PHYSICALFEATURE TYPE.....</b>	<b>162</b>
<b>A.17</b>	<b>MEDICALCONDITION TYPE .....</b>	<b>163</b>
	<b>APPENDIX B MAPPING BETWEEN VCARD AND NIEM PERSON TYPE .....</b>	<b>163</b>
	<b>APPENDIX C OPENAPI SCHEMA.....</b>	<b>166</b>
	<b>ACKNOWLEDGEMENTS.....</b>	<b>198</b>



**NENA  
STANDARD DOCUMENT  
NOTICE**

This Standard Document (STA) is published by the National Emergency Number Association (NENA) as an information source for 9-1-1 System Service Providers, network interface vendors, system vendors, telecommunication service providers, and 9-1-1 Authorities. As an industry Standard, it provides for interoperability among systems and services adopting and conforming to its specifications.

NENA reserves the right to revise this Standard Document for any reason including, but not limited to:

- Conformity with criteria or standards promulgated by various agencies,
- Utilization of advances in the state of the technical arts,
- Reflecting changes in the design of equipment, network interfaces, or services described herein.

This document is an information source for the voluntary use of communication centers. It is not intended to be a complete operational directive.

It is possible that certain advances in technology or changes in governmental regulations will precede these revisions. All NENA documents are subject to change as technology or other influencing factors change. Therefore, this NENA document should not be the only source of information used. NENA recommends that readers contact their 9-1-1 System Service Provider (9-1-1 SSP) representative to ensure compatibility with the 9-1-1 network, and their legal counsel, to ensure compliance with current regulations.

Patents may cover the specifications, techniques, or network interface/system characteristics disclosed herein. No license is granted, whether expressed or implied. This document shall not be construed as a suggestion to any manufacturer to modify or change any of its products, nor does this document represent any commitment by NENA, or any affiliate thereof, to purchase any product, whether or not it provides the described characteristics.

By using this document, the user agrees that NENA will have no liability for any consequential, Incidental, special, or punitive damages arising from use of the document.

NENA's Committees have developed this document. Recommendations for changes to this document may be submitted to:

National Emergency Number Association  
1700 Diagonal Rd, Suite 500  
Alexandria, VA 22314  
202.466.4911  
or [commleadership@nena.org](mailto:commleadership@nena.org)



**NENA: The 9-1-1 Association** improves 9-1-1 through research, standards development, training, education, outreach, and advocacy. Our vision is a public made safer and more secure through universally-available state-of-the-art 9-1-1 systems and better-trained 9-1-1 professionals. Learn more at [nena.org](http://nena.org).

## Document Terminology

This section defines keywords, as they should be interpreted in NENA documents. The form of emphasis (UPPER CASE) shall be consistent and exclusive throughout the document. Any of these words used in lower case and not emphasized do not have special significance beyond normal usage.

1. **MUST, SHALL, REQUIRED:** These terms mean that the definition is a normative (absolute) requirement of the specification.
2. **MUST NOT:** This phrase, or the phrase "SHALL NOT", means that the definition is an absolute prohibition of the specification.
3. **SHOULD:** This word, or the adjective "RECOMMENDED", means that there may exist valid reasons in particular circumstances to ignore a particular item, but the full implications must be understood and carefully weighed before choosing a different course.
4. **SHOULD NOT:** This phrase, or the phrase "NOT RECOMMENDED" means that there may exist valid reasons in particular circumstances when the particular behavior is acceptable or even useful, but the full implications should be understood and the case carefully weighed before implementing any behavior described with this label.
5. **MAY:** This word, or the adjective "OPTIONAL", means that an item is truly optional. One vendor may choose to include the item because a particular marketplace requires it or because the vendor feels that it enhances the product while another vendor may omit the same item. An implementation which does not include a particular option "must" be prepared to interoperate with another implementation which does include the option, though perhaps with reduced functionality. In the same vein, an implementation which does include a particular option "must" be prepared to interoperate with another implementation which does not include the option (except, of course, for the feature the option provides).

These definitions are based on IETF RFC 2119 [2].



## Intellectual Property Rights (IPR) Policy

NOTE – The user’s attention is called to the possibility that compliance with this standard may require use of an invention covered by patent rights. By publication of this standard, NENA takes no position with respect to the validity of any such claim(s) or of any patent rights in connection therewith. If a patent holder has filed a statement of willingness to grant a license under these rights on reasonable and nondiscriminatory terms and conditions to applicants desiring to obtain such a license, then details may be obtained from NENA by contacting the Committee Resource Manager identified on NENA’s website at [www.nena.org/ipr](http://www.nena.org/ipr).

Consistent with the NENA IPR Policy, available at [www.nena.org/ipr](http://www.nena.org/ipr), NENA invites any interested party to bring to its attention any copyrights, patents or patent applications, or other proprietary rights that may cover technology that may be required to implement this standard.

Please address the information to:

National Emergency Number Association  
1700 Diagonal Rd, Suite 500  
Alexandria, VA 22314  
202.466.4911  
or [commleadership@nena.org](mailto:commleadership@nena.org)

## Reason for Issue/Reissue

NENA reserves the right to modify this document. Upon revision, the reason(s) will be provided in the table below.

Document Number	Approval Date	Reason For Issue/Reissue
NENA-STA-021.1-2021	10/19/2021	Initial Document





Document Number	Approval Date	Reason For Issue/Reissue
NENA-STA-021.1a-2022	04/19/2022	<p>Publishing error corrections:</p> <p>Section 2.5 page 15 agentRoleRegistryText example values now match values from the "Agent Roles" registry.</p> <p>Section 2.10 page 29 answerDate description now say "date and time stamp" instead of "date".</p> <p>Section 2.6 page 17 agencyType adds that values are from IANA urn:emergency:service:responder registry and the subregistries and provide examples.</p>

## 2 Data Associated with an Emergency Incident

All mention of registries in this document reference IANA (<https://www.iana.org/protocols>) "emergency" registry unless specified otherwise.

### 2.1 Data Components

Chapter 2 (Data Associated with an Emergency Incident) identifies the data elements associated with an emergency Incident grouped into various data components. Each data component, except Reference, has a common set of elements which include:

- Identifier (\$id) – required - An identifier that uniquely labels a data component. For data components where there is an identifier such as a Call Identifier, Agency Identifier or Agent Identifier, that identifier is used for this member. For data components that do not have such an identifier, the form of the Identifier is a URN formed by the prefix "urn:emergency:uid:eidodatacomponent:", a unique string containing alpha and/or numeric characters, the ":" character, and Agency Identifier of the Agency that created the data component. For example, "urn:emergency:uid:eidodatacomponent:a56e556d871:idx.psap.allegheny.pa.us" is a properly formatted eidodatacomponent. The identifier MUST be the same for all instances of this specific data component for all EIDOs for the incident, and unique from all other data components in the EIDO.
- lastUpdateTimeStamp - required - Timestamp of the last time the data component was modified. Must be in the W3C datetime format as specified in NENA-STA-010[3].
- updatedByAgencyReference - mandatory – Reference to the agency that updated the data component last.
- updatedByAgentReference - conditional – Reference to the Agent that updated the data component last. Must be present if the data component was created or updated by an agent.

### 2.2 Data Component Table Structure

The initial (heading) section of each data component contains the following information blocks:

- Data Component – the name of the data component (e.g., EIDO Header, Agency Information, etc.)
- Data Component Use – Identifies whether the data component is required or optional in EIDO instances.



- Minimum Number – the minimum occurrences of the data component allowed in EIDO instances.
- Maximum Number – the maximum occurrences of the data component allowed in EIDO instances.
- Child Of: Identifies the potential parents of which a data component can be a child. See the parent component to determine the relationship between the child and parent.
- Data Component Description – a general description of the purpose and contents of the data component.

The above information blocks are followed by a table that identifies the data elements included in the data components. Note that entire data components are included as a complex data element within their parent data component. In this case, the description identifies it as a complex data element (data component) and defines the relationship between the two data components.

The following information is included for each data element:

- JSON Name – Name of the data element.
- Use – identifies whether the data elements are required, optional or conditional. Data elements that are conditional describe the conditions when they are required and when they are optional. Required data elements can exist within optional data components. Required data elements of an optional data component are only required if the data component is included in an EIDO instance. For example, not all EIDO instances will contain a Dispatch Information data component since sufficient information to dispatch emergency resources to the Incident are not yet available or assigned resource statuses have not changed. However, if an EIDO instance contains a Dispatch Information data component, that data component must always contain the "Incident Type–Common" data element.
- Minimum number – the minimum occurrences of the data element that may be included in the data component.
- Maximum Number – the maximum occurrences of the data element that may be included in the data component.
- Description – a general description of the data element. For complex data elements (data components), the description identifies the relationship between the two data components.

Chapter 5 (References) includes sources and references that can be used to obtain additional information about related NENA standards, NIEM, and global justice terminology and standards.



Chapter 3 (IANA Actions) identifies registries that define the domain of values that must be used for specific EIDO elements.

### 2.3 JSON Reference Data Component

**Data Component Use:** Optional component

**Min:** 0

**Max:** \*

**Child Of:** Agent, Agency, Split/Merge, Link, Incident, Call Data, Dispatch, Notes, Additional Data, Emergency Resource, Alarms and Sensors

**Data Component Description:** This Data Component is used by other data components to reference data components present elsewhere in the EIDO document.

**Table 2-1 JSON Reference Data Component**

JSON Name	Use (required, optional, conditional)	Min	Max	Description
\$ref	Required	1	1	Data element containing the Identifier (\$id) of the referenced data element.

### 2.4 Emergency Incident Data Object Data Component

**Data Component Use:** Required component

**Min:** 1

**Max:** 1

**Child Of:** None

**Data Component Description:** This is the parent data component that contains all the other data components to form an EIDO. This Data Component must always be present. A functional element receiving an eido for an incident where the state is already known and that need to know what changed it must compare the previously known state with the received EIDO.

In this data component, the identifier (\$id) is the Incident Tracking Identifier. The Incident Tracking Identifier is a identifier assigned by the first element in the ESInet. The form of an Incident Tracking Identifier is defined in NENA-STA-010<sup>1</sup>[3].

Incident Tracking Identifiers are globally unique and are associated with a single emergency Incident. The Incident Tracking Identifier can be associated with one or more emergency calls. It is carried through to any Incident resulting from an emergency call. It may or may not be the same as the local Incident ID.

When EIDO is exchanged not as part of an Incident, it contains an IncidentTrackingIdentifier as identified in STA-010 [3] where "unique string" is "0".  
Example: urn:emergency:uid:Incidentid:0:police.state.pa.us.

**Table 2-2 Emergency Incident Data Object Component**

<b>JSON Name</b>	<b>Use (required, optional, conditional)</b>	<b>Min</b>	<b>Max</b>	<b>Description</b>
eidoVersion	Required	1	1	Version of the EIDO structure. For this version of the standard the value MUST be "1.0". For non breaking change to the structure the minor version number will be incremented. For breaking change to the structure the major version number will be incremented.
issuingElementIdentification	Required	1	1	An identifier in the format defined in NENA-STA-010[3].Identify the element that created the EIDO.
mergeComponent	Optional	0	*	Complex data element (Data Component). Contains merge and split information related to the Incident.

---

<sup>1</sup> NENA-STA-010 include text to handle the case of sending the EIDO by reference or value in a transferred SIP call.

<b>JSON Name</b>	<b>Use (required, optional, conditional)</b>	<b>Min</b>	<b>Max</b>	<b>Description</b>
linkComponent	Optional	0	*	Complex data element (Data Component). Contains link information related to the Incident.
incidentComponent	Optional	0	1	Complex data element (Data Component). Contains general information about the Incident.
callComponent	Optional	0	*	Complex data element (Data Component). Contains information about calls associated with the Incident.
callbackComponent	Optional	0	*	Complex data element (Data Component). Contains information about how to call a person.
dispatchComponent	Optional	0	*	Complex data element (Data Component). Contains dispatch information related to the Incident.
notesComponent	Optional	0	*	Complex data element (Data Component). Contains Incident notes and comments associated with the Incident.
emergencyResourceComponent	Optional	0	*	Complex data element (Data Component). Identifies emergency resources involved with the Incident.
alarmsSensorComponent	Optional	0	*	Complex data element (Data Component). Identifies Alarms/Sensors associated with the Incident.
agencyComponent	Required	1	*	Complex data element (Data Component). Identifies all agencies involved with the Incident.
agentComponent	Conditional	0	*	Complex data element (Data Component). Identifies all agent involved with the Incident. Must



JSON Name	Use (required, optional, conditional)	Min	Max	Description
				be provided if an Agent is involved in the Incident.
additionalDataComponent	Optional	0	*	Complex data element (Data Component). All additional data related to the Incident.
locationComponent	Conditional: Required if a location is known about the Incident	0	*	Complex data element (Data Component). All locations related to the Incident.
personComponent	Optional	0	*	Complex data element (Data Component). Every person related to the Incident.
vehicleComponent	Optional	0	*	Complex data element (Data Component). Every vehicle related to the Incident.

## 2.5 Agent Data Component

**Data Component Use:** Conditional Component

**Minimum Number:** 0

**Maximum Number:** \*

**Child Of:** Emergency Incident Data Object

**Data Component Description:** This Data Component contains information about agents (e.g., call takers, dispatchers, supervisors, responders, etc.) that are involved in the Incident. There may be multiple Agent Information data components in the case where both a call taker and dispatcher are involved in an Incident, where multiple dispatch agencies are associated with the same Incident, and similar situations.

Rarely, as in the case of automatically dispatched responses, the agent may be an automaton (automated system) such as an Interactive Media Response (IMR). Automatons that are actively involved in an Incident or call must be assigned an Agent ID that follows

the i3 naming conventions (see NENA-STA-010 [3] for more information). In this data component, the identifier (\$id) is the Agent Identifier.

**Table 2-3 Agent Data Component**

<b>JSON Name</b>	<b>Use (required, optional, conditional)</b>	<b>Min</b>	<b>Max</b>	<b>Description</b>
agentJcard	Optional	0	1	The agent's contact information.
agentWorkstationPositionIdentification	Conditional: Required if agent workstation has a position identification.	0	1	The workstation position ID within the agent's agency.
agentRoleRegistryText	Required	1	*	The Role of the Agent – Dispatching, Call Taking, etc. The acceptable roles are defined in the "Agent Roles" registry in NENA-STA-010 [3].
notesReference	Optional	0	*	Reference to a Notes Data Component. Contains optional alphanumeric text further describing the agent.



JSON Name	Use (required, optional, conditional)	Min	Max	Description
agencyReference	Required	1	1	Reference to an Agency Data Component. Identifies the agency employing or contracting with the agent.

## 2.6 Agency Data Component

**Data Component Use:** Required

**Minimum Number:** 1

**Maximum Number:** \*

**Child Of:** Emergency Incident Data Object

**Data Component Description:** Every EIDO will include at least one instance of this data component in the agency component of the Emergency Incident Data Object in order to identify the Agency creating the EIDO.

Many Incidents have one owner, a specific agency. Sometimes, ownership changes from one owner to another. In some jurisdictions, there can be more than one owner. Normally, ownership is passed from the current owner to another, but there are circumstances where ownership is unclear, and ownership must be claimed. The Agency Information data component provides a mechanism for establishing the agency that owns the Incident associated with the Incident tracking ID contained in the EIDO Header data component or for removing current ownership from that Incident.

Agencies in this context are construed broadly to include such organization as poison control centers, tow truck operators, hospitals and utility companies.

In this data component, the identifier (\$id) is the Agency Identifier. The Agency Identifier Identify the agency. See NENA-STA-010 [3] Agency Identifier section for the format and requirements of the identifier data element within the identity component.

The agency whose identifier is found within this component MUST have a record in the Service/Agency Locator as defined in NENA-STA-010 [3]

**Table 2-4 Agency Data Component**

<b>JSON Name</b>	<b>Use (required, optional, conditional )</b>	<b>Min</b>	<b>Max</b>	<b>Description</b>
agencyJcard	Optional	0	1	The agency's contact information.
agencyRoleDescriptionRegistryText	Required	1	*	The role of the agency in relation to the Incident. Valid roles are available in the "EIDO-AgencyRole" registry and include:Dispatching, Dispatched, CallReceiving, and TransferredTo. See Section 3.1, below, for the registry description.
agencyType	Required	1	*	One or more members of a list of available provider and agency types.  The agency types are taken from the IANA urn:emergency:service:responder registry and the subregistries defined for that registry. Values exclude the "urn:emergency:service:responder." prefix. Example values: "police.federal.fbi", "fire.forest", "poison_control"
notesReference	Optional	0	*	Reference to a Notes Data Component. Contains optional alphanumeric text about the agency in the context of the incident.



JSON Name	Use (required, optional, conditional )	Min	Max	Description
incidentOwningAgencyIndicator	Optional	0	1	Boolean data element that, if true, indicates that the agency associated with the Agency ID contained in this data component owns; or, if false does not own, the Incident associated with the Incident tracking ID in the EIDO data component. Once set to true, it should only be set to false by the agency that originally set it true. Used to enable the exchange and update of Incident ownership information. Only one Agency Data Component can have this set to true in the EIDO.

## 2.7 Split/Merge Data Component

**Data Component Use:** Optional Component

**Minimum:** 0

**Maximum:** \*

**Child Of:** Emergency Incident Data Object

**Data Component Description:** An optional data component that is used to indicate the existence of a merged Incident Tracking ID or to split an Incident. The presence of a Split/Merge Information data component indicates that another Incident Tracking ID has been merged with or is being split from the Incident Tracking ID contained in the EIDO header.

**Table 2-5 Split/Merge Data Component**

<b>JSON Name</b>	<b>Use (required, optional, conditional)</b>	<b>Min</b>	<b>Max</b>	<b>Description</b>
incidentTrackingIdentifier	Required	1	1	The Incident Tracking Identification of the Incident that is being merged with, or split from the Incident represented by the Incident Tracking Identification contained in the EIDO Header. See Incident Split/Merge Indicator to determine the direction of the merge/split.
incidentMergeDirectionCode	Required	1	1	<p>The role of the IncidentTrackingIdentifier in this data component. Indicator is:</p> <ul style="list-style-type: none"> <li>- "REPLACED" the Incident Tracking Identifier in this data component contains the old Incident Tracking Identifier. Only applies to a merge operation.</li> <li>- "REPLACING" the Incident Tracking Identifier in this data component contains the new Incident Tracking Identifier. Only applies to a merge operation.</li> <li>- "Split" The Incident Tracking Identifier contained in this data component is split from the Incident Tracking Identifier contained in the EIDO Header data component. The other data components contained in the EIDO contain the data elements of the split Incident.</li> </ul>



## 2.8 Link Data Component

**Data Component Use:** Optional Component

**Minimum:** 0

**Maximum:** \*

**Child Of:** Emergency Incident Data Object

**Data Component Description:** An optional data component that is used to indicate the existence of linked calls and Incidents. A Link data component indicates that an Incident has been linked to the Incident Tracking Identifier in the EIDO header. Incidents are linked when it is determined that while they are separate Incidents, they are related in some way. When a link is declared, both Incident Tracking Identifiers continue to be used to track the individual Incidents.

Incidents may be linked in a hierarchical relationship. For more information on hierarchal Incidents see the Incident Tracking Identifier section of NENA-STA-010 [3].

**Table 2-6 Link Data Component**

JSON Name	Use (required, optional, conditional)	Min	Max	Description
incidentTrackingIdentifier	Required	1	1	The Incident Tracking Identifier of the Incident that is being linked to the Incident represented by the Incident Tracking Identifier contained in the EIDO Header. The nature of the link is defined by the link Indicator below.
transactionReasonText	Optional	0	1	Free format narrative description of the reason for the link.
involvedAgencyReference	Optional	0	*	Other Agencies involved with the linked Incident if known.
linkDirectionCode	Required	1	1	The direction of the link – If the value of the Link Indicator is: - "Parent" The Incident Tracking Identifier contained in this data component is the parent of the Incident

JSON Name	Use (required, optional, conditional)	Min	Max	Description
				<p>Tracking Identifier contained in the EIDO header.</p> <ul style="list-style-type: none"> <li>- "Child" The Incident Tracking Identifier contained in this data component is the child of the Incident Tracking Identifier in the EIDO header.</li> <li>- "Related" The Incident Tracking Identifier contained in this data component is related to the Incident Tracking Identifier in the EIDO header, without any parent-child relationship.</li> <li>- "UnLink" The Incident Tracking Identifier contained in this data component is unlinked from the Incident Tracking Identifier contained in the EIDO Header data component.</li> </ul>

## 2.9 Incident Data Component

**Data Component Use:** Optional Component

**Minimum:** 0

**Maximum:** 1

**Child Of:** Emergency Incident Data Object

**Data Component Description:** The Incident Information data component is optional and is used to exchange general information about emergency Incidents gathered by emergency agents, emergency responders, from reporting parties (callers), and devices reporting emergency Incidents. Agencies responding to the same Incident may have different versions of the Incident Information data components for the Incident. Each agency's version of the Incident Information data component contains information that is relevant to their agency but may also contain shared information that is common to both agencies.

This module is used to exchange Incident update information, as well as for exchanging initial Incident creation information. For example, in high priority Incidents only partial information may be exchanged between call takers and dispatchers (i.e., the Incident's type and location) while additional information is being collected. This data component is used for the initial, high priority exchange and the subsequent exchange containing the additional information collected after the initial exchange was completed. When multiple callers report a single Incident, this data component is used to update involved agents and responders about new information gathered from the other callers.

The Incident Information Data Component is also used to exchange general Incident information developed during dispatch operations. Call takers, Dispatchers, Emergency Resources, and Emergency Devices can enter information exchanged/carried by this data component.

**Table 2-7 Incident Data Component**

<b>JSON Name</b>	<b>Use (required, optional, conditional)</b>	<b>Min</b>	<b>Max</b>	<b>Description</b>
incidentTypeInternalCode	Optional	0	1	An alphanumeric code indicating the category of the Incident. This is the internal code used by the local agencies involved in the Incident.
incidentTypeInternalText	Optional	0	1	Textual description indicating the category of the Incident. This is the internal text used by the local agencies involved in the Incident.
incidentTypeCommonRegistryText	Required	1	1	Incident type code that is available in the EIDO- "IncidentType-Common" registry (see Section 3.2, below, for the registry description) and that most closely corresponds to the Incident Type internal code. APCO has developed an ANS set

JSON Name	Use (required, optional, conditional)	Min	Max	Description
				of globally unique common Incident type codes (APCO ANS 2.103.2-2019) [8], which form the basis for this registry. Each Agency should maintain a mapping of its Internal Incident Types (IncidentTypeInternal) to the list of Common Incident Types (IncidentTypeCommon). The Common Incident Type should be selected from this mapping when the EIDO is created to identify the Incident type using a common code that is globally understood.
incidentStatusInternalText	Optional	0	*	An alphanumeric code indicating the status of the Incident (active, closed, structure cleared, etc.). This is the internal code used by the local agencies involved in the Incident.
incidentStatusCommonRegistry Text	Optional	0	*	Incident status code that is available in the Incident Status Registry (see Section 3.3, below, for the registry description) and that most closely corresponds to the Incident Status-Internal. Typically used to track significant changes in an Incident's status. Each Agency should maintain a mapping of its internal Incident status





JSON Name	Use (required, optional, conditional)	Min	Max	Description
				(IncidentStatusInternal) to the list of common Incident status (IncidentStatusCommon). The common Incident status should be selected from this mapping when an EIDO is created to identify the Incident status using a common code that is globally understood.
internalIncidentId	Optional	0	1	The Internal Incident ID as an alphanumeric string assigned by the agency involved in the Incident. Used To exchange Incident information between systems using the same internal Incident IDs. Maintained for conformance with legacy systems.
agentReference	Optional	0	*	Reference to Agent Data Components. Identifies the agents (could be either an agent in a communication center or an emergency responder) that are involved in this Incident.
locationReference	Optional (Required if available)	0	*	Reference to an Location Data Component. Contains Incident location information entered or updated by an agent receiving a call associated with the Incident.
personReference	Optional	0	*	Reference to an Person Data Component. Contains person information entered or updated by an agent receiving a call associated with the Incident.



JSON Name	Use (required, optional, conditional)	Min	Max	Description
vehicleReference	Optional	0	*	Reference to an Vehicle Data Component. Contains vehicle information entered or updated by an agent receiving a call associated with the Incident.
documentIdentification	Optional	0	*	The Document Identification connects the Incident to one or more associated follow-up reports and investigations. Each responding agency may have its own Document Identification. Also used by agency supervisor and other personnel to track the status of reports.
reportNumberType	Conditional: MUST be populated if Report Number is present	0	1	Report number type codes that are available in the EIDO Registries (see Section 3.4, below, for the registry description); may be New or Reopened.
incidentPriorityInternalText	Optional	0	1	Priority of the Incident as alphanumeric text for the agency being dispatched. This value may only be meaningful to the agency providing the information and other closely cooperating agencies. Note, that different responding agencies may assign different priorities to same Incident; for example, a high priority fire Incident may be a medium priority law enforcement Incident.



JSON Name	Use (required, optional, conditional)	Min	Max	Description
incidentCommonPriorityNumber	Optional	0	1	Globally understood numeric Incident priority that ranges from 0 to 10, with 10 being the highest priority and 0 being the lowest priority. The Local Priority, described above, should be mapped to this (Common Priority) data element so that all involved and interested agencies can determine the relative priority of the Incident.
beatOrDispatchGroupText	Optional	0	1	The beat or dispatch group that contains the Incident. Note that each agency involved in the Incident may have its own beat or dispatch group.
disposition	Optional	0	*	Complex data element. Contains Incident disposition information entered or updated by a dispatch agent and/or an emergency responder.
notesReference	Optional	0	*	Reference to a Notes Data Component. Contains optional alphanumeric text further describing the Incident.

## 2.10 Call Data Component

**Data Component Use:** Optional Component

**Minimum:** 0

**Maximum:** \*

**Child Of:** Emergency Incident Data Object

10/19/2021

Page 27 of 199



**Data Component Description:** The Call Information data component is optional and is used to exchange call information about the Incident received and collected by the agent identified in this data component. There can be more than one call about an Incident, and thus more than one instance of this data component can be in an EIDO. Some of the information in this data component is contained in the call, some is additional data associated with the call, and other information is collected by the agent.

Every participant in the call is referenced by either an agentReference or personReference.

In this data component, the identifier (\$id) is the Call identifier. The Call identifier is automatically created by the first ESRP in the first ESInet that handles a call. Call Identifiers are globally unique and are only valid for a specific call.

**Table 2-8 Call Data Component**

JSON Name	Use (required, optional, conditional)	Min	Max	Description
relatedCallIdentifier	optional	0	*	CallIdentifier of calls that are related to this call. Eg: Callbacks
queueIdentifier	optional	0	1	An identifier of a queue where the call is currently on.
standardPrimaryCallType	Required	1	1	Primary call type. Values limited to those in the LogEvent CallTypes registry with "Primary" classification.
standardSecondaryCallType	optional	0	1	Secondary call type. Values limited to those in the LogEvent CallTypes registry with "Secondary" classification.

JSON Name	Use (required, optional, conditional)	Min	Max	Description
localCallType	optional	0	1	Locally defined call type.
direction	Required	1	1	The "direction" member has one of these values, "incoming", "outgoing" or "internal", where "incoming" means received by the EIDO sender, "outgoing" means sent by the EIDO sender and "internal" means both caller and recipient are within the EIDO sender.
additionalDataReference	optional	0	*	Reference to an Additional Data Data Component. Additional information about a call received that is involved in or related to the Incident. There may be multiple data providers for one call. Additional Information is defined in RFC 7852 [6]

JSON Name	Use (required, optional, conditional)	Min	Max	Description
callStartTimestamp	Required	1	1	Date and time stamp of when the call was received. SHALL be represented by the "date-time" datatype described in RFC 3339, Section 5.6 as specified in NENA-STA-010.3-202x [3].
answerDate	optional	0	1	A date and time stamp on which the call was answered by an agent.
callStateRegistryText	Required	1	1	Current call status (when the EIDO was created) from the available call statuses in the "Call States" registry i.e., callBegin, callAnswered, callEnd, partyAdd , etc. Values limited to those in the IANA CallStates registry.

JSON Name	Use (required, optional, conditional)	Min	Max	Description
agentReference	Conditional	0	*	Reference to an Agent Data Component. Identifies the agent(s) that is involved with the call described in this data component and/or entered additional information related to the received call. Must always be present if one or more Agent is involved in the call.
callbackReference	Conditional	0	1	Reference to a call back data component. Identifies how the caller described in this data component can be called back. Required if available.
verstat	Conditional	0	1	Value of the verstat parameter. Required if known.
sipIdentity	Conditional	0	1	Content of the SIP identity header. Required if known.
locationReference	Conditional	0	*	Reference to a Location Data Component. Contains call location information received with the call or updated by the agent receiving the call. Must be present if location is presented with the call.



JSON Name	Use (required, optional, conditional)	Min	Max	Description
notesReference	Optional	0	*	Reference to a Notes Data Component. Contains optional alphanumeric text further describing the call.
personReference	Conditional	0	*	Reference to a Person Data Component. Contains information about the caller(s). Must be present if the call is a SIP session.

## 2.11 Call Back Data Component

**Data Component Use:** Optional Component

**Minimum:** 0

**Maximum:** \*

**Child Of:** Emergency Incident Data Object

**Data Component Description:** This data component is used to exchange information about how to contact the Incident's reporting parties.

**Table 2-9 Call Back Data Component**

JSON Name	Use (required, optional, conditional)	Min	Max	Description
callBackInformationUri	conditional	0	*	Information that enables agents and responders to call back. URI(s) found in the P-Asserted-Identity header if provided else the URI in the From header.



JSON Name	Use (required, optional, conditional)	Min	Max	Description
deviceContactHeader	Required	0	1	Content of the device contact header. Information that enables agents and responders to possibly reach (call back) the device that initiated the call. Note, that this information is only guaranteed to be valid during the call and for a few minutes after it ends.
updatedCbn	Optional	0	*	Complex data element. Identifies additional telephone numbers and SIP equivalents that can be used to contact the individual that made the call described in this data component.

## 2.12 Updated Call Back Number Data Component

**Data Component Use:** Optional Component

**Minimum:** 0

**Maximum:** \*

**Child Of:** Call Back

**Data Component Description:** This data component is optional and is used to exchange information about additional phone numbers that can be used to contact the Incident's reporting parties.

**Table 2-10 Updated Call Back Number Data Component**

<b>JSON Name</b>	<b>Use (required, optional, conditional)</b>	<b>Min</b>	<b>Max</b>	<b>Description</b>
updatedCbnIdentifierUri	Required	1	1	This data element (in the form of a URI) is used to track additional telephone number or SIP equivalents that can be used to contact the reporting party of the parent call.
updatedCbnCallerDescription	Optional	0	1	Descriptive (alphanumeric) text that provides additional information about the updated call back number such as hours to use it, days to use it, and the type of number (e.g., work, home, friend, etc.)

### **2.13 Dispatch Data Component**

**Data Component Use:** Optional Component

**Minimum:** 0

**Maximum:** \*

**Child Of:** Emergency Incident Data Object

**Data Component Description:** This Data Component contains dispatch related information. It allows updates to be sent and received between Incident Handling FEs and Dispatch FEs, between different Dispatch FEs that are working the same Incident, and enables exchanging information provided directly by emergency responders. It can also be used to provide dispatch related status updates to involved agencies and authorized stakeholders.

**Table 2-11 Dispatch Data Component**

<b>JSON Name</b>	<b>Use (required, optional, conditional)</b>	<b>Min</b>	<b>Max</b>	<b>Description</b>
agencyReference	Optional	0	1	Reference to an Agency Data Component. Agency that was dispatched through action performed in this data component. Note, that if several agencies are dispatched (one fire and one police, two fire agencies, etc.), there must be a separate instance of the dispatch data component for each dispatched agency. Agencies are globally unique.
agentReference	Optional	0	1	Reference to an Agent Data Component. Identifies the agent that completed the dispatch operation described in, and/or entered the information contained in this data component.
emergencyResourceReference	Optional	0	*	Reference to an Emergency Resource Data Component. Contains information about emergency responders assigned (dispatched) to the Incident, as well as their status and location updates. This data component is not required when emergency responders update their status and/or location directly without requiring dispatcher entry.
notesReference	Optional	0	*	Reference to a Notes Data Component. Contains optional alphanumeric text further describing the dispatch.

## 2.14 Disposition Data Component

**Data Component Use:** Optional Component

**Minimum:** 0

**Maximum:** \*

**Child Of:** Incident Information and Responder Information

**Data Component Description:** Agency specific and standardized disposition codes assigned to an Incident. Multiple disposition codes per Incident are supported. Either a responder or a dispatcher can close an Incident and assign a final disposition codes to it.

**Table 2-12 Disposition Data Component**

JSON Name	Use (required, optional, conditional)	Min	Max	Description
dispositionCommonRegistryCode	Required	1	1	An agency assigns a disposition to an Incident when its participation in the Incident ends. The disposition code indicates whether follow-up reports are required and other information about the Incident such as whether it resulted from a false or actual alarm. They are used to exchange the status and follow up requirements of an Incident upon its closure. The disposition codes are drawn from a registry containing common disposition codes for Police, Fire EMS disciplines. See Section 3.4, below, for the description of the registry.

JSON Name	Use (required, optional, conditional)	Min	Max	Description
dispositionPrimaryIndicator	Optional	0	1	A designation of whether the common disposition code is the primary disposition code for the Incident. Note that multiple primary codes are allowed, but some systems may not be able handle more than one primary common disposition code. It is possible that no codes are marked as primary. The value is Boolean, where True is a primary disposition code.
dispositionCategoryText	Optional	0	1	An agency-specific, alphanumeric code that indicates how the Incident was closed. The Common Disposition Code, referenced above, should be mapped to the closest value of this data element.
dispositionDescriptionText	Conditional: MUST be populated if Disposition Code Type is presentOptional otherwise.	0	1	Descriptive text describing the Disposition Code Internal. Disposition codes may be agency specific and this field explains the meaning of the internal disposition code.
notesReference	Optional	0	*	Reference to a Notes Data Component. Contains optional alphanumeric text further describing the disposition code.



## 2.15 Notes Data Component

**Data Component Use:** Optional Component

**Minimum:** 0

**Maximum:** \*

**Child Of:** Emergency Incident Data Object

**Description:** This Data Component is typically populated by emergency service agents and responders and occasionally by automated devices. There may be multiple notes from the same agent and there may be notes from multiple agents and agencies.

**Table 2-13 Notes Data Component**

JSON Name	Use (required, optional, conditional)	Min	Max	Description
notesActionComments	Required	1	1	Notes created by an agent entered in HTML fragments, as supported by NIEM, and shall be limited to 16 MB. HTML is used to allow multimedia data to be contained in the notes. Security issues may arise from embedding scripts, images, and other references including JavaScript in notes and the receiving system may ignore or filter out such embedded information.
agentReference	Optional	0	1	Reference to an Agent Data Component. Identifies the agent and agency that entered the note contained in this data component. Defaults to the Agency Information included in the EIDO header, if this data component is not present.

## 2.16 Person Data Component

**Data Component Use:** Optional Component

10/19/2021

Page 38 of 199



**Minimum:** 0

**Maximum:** \*

**Child Of:** Emergency Incident Data Object

**Data Component Description:** This Data Component is used to exchange information about people associated with an Incident including: callers, suspects, victims, witnesses and other individuals involved in the Incident. The information is provided by reporting parties and emergency responders. Responders can enter the information either directly through their mobile data computers or via their assigned dispatchers.

An instance of Person Data Component **MUST** be created along with a Call Data Component at the beginning of an emergency call. The Person Data Component must have the personIncidentRoleRegistryText element set to "caller" and the callBackReference element refers to the same Call Back Data Component designated by the Call Data Component. If the emergency call included a SubscriberInfo Additional Data block, the Additional Data Component reference for that block and its associated ProviderInfo block **SHOULD** be specified in an additionalDataReference element. At the end of the emergency call, while the EIDO may no longer include a Call Data Component, the caller's details will continue to be found in the Person Data Component.

**Table 2-14 Person Data Component**

JSON Name	Use (required, optional, conditional)	Min	Max	Description
personIncidentRoleRegistryText	Required	1	*	Describes the relationship (Caller, Victim, suspect, etc.) of a person to the Incident. Available person types are contained in the Person Role registry. See section 3.6, below for the registry description. Note that there could be multiple relationships as when the reporting party is also the victim.

JSON Name	Use (required, optional, conditional)	Min	Max	Description
callIdentifier	conditional	0	*	Call Identifier of the calls this person was involved on. Must be provided if this person was involved in a call. Must be an Identifier as defined in the Call Identifier section of NENA-STA-010 [3].
locationReference	Optional	0	*	Reference to an Location Data Component. Location of the person.
notesReference	Optional	0	*	Reference to a Notes Data Component. Contains optional alphanumeric text further describing the person.
ncPersonComponent	Optional	0	1	NIEM Core Person Type, a data type for a human being.
additionalDataReference	Optional	0	*	Additional Data about a person.
callBackReference	Conditional	0	1	Reference to a call back data component. Identifies how the person described in this data component can be called back. Required if available.

## 2.17 Vehicle Data Component

**Data Component Use:** Optional Component

**Minimum:** 0

**Maximum:** \*

**Child Of:** Emergency Incident Data Object

**Data Component Description:** This Data Component is used to exchange information about vehicles associated with an Incident including: suspect vehicles, vehicles involved in accidents, and other vehicles involved with the Incident. The information is provided by

10/19/2021

Page 40 of 199





reporting parties and emergency responders. Responders can enter the information either directly through their mobile data computers or via their assigned dispatchers.

**Note:** Vehicle telematics information is not located in this data component. It is located in additional data associated with a call.

**Table 2-15 Vehicle Data Component**

JSON Name	Use (required, optional, conditional)	Min	Max	Description
vehicleRelationshipType	Required	1	*	Describes the relationship (victim's vehicle, accident vehicle, suspect vehicle, etc.) of a vehicle to the Incident. Available vehicle relationship types are contained in the "EIDO-VehicleRelationshipType" registry. See Section 3.7, below, for the registry description.
vehicleRelationshipTimeStamp	Required	1	1	The date and time that the relationship of the vehicle to the Incident was established by this data component instance. SHALL be represented by the "date-time" datatype described in RFC 3339, Section 5.6 as specified in NENA-STA-010.
additionalDataReference	Optional	0	*	Reference to an Additional Data Data Component. Additional information about a vehicle that is involved in or related to the Incident. There may be multiple data providers for one vehicle.

JSON Name	Use (required, optional, conditional)	Min	Max	Description
locationReference	Optional	0	*	Reference to a Location Data Component. Location of the vehicle.
notesReference	Optional	0	*	Reference to a Notes Data Component. Contains optional alphanumeric text further describing the vehicle.
ncVehicleComponent	Optional	0	1	NIEM Core VehicleType. A data type for a conveyance designed to carry an operator, passengers and/or cargo, over land.

## 2.18 Location Data Component

**Data Component Use:** Optional Component.

**Minimum:** 0

**Maximum:** \*

**Child Of:** Emergency Incident Data Object

**Data Component Description:** This Data Component represents a location description. The type of location may be the caller's location, the Incident's location or another type of location indicated by the Location Type field in the data component. In order to dispatch emergency responders an "initial" Incident location is required. It may be the same as the caller's location, but it may also evolve as the Incident progresses. For example, emergency responders are initially dispatched to the caller's location, the caller verbally describes a different location for the Incident, and finally the first responders

arrive at the scene and relates yet another location for the Incident. The Incident's location may also be mobile such as a caller reporting an Incident from a moving vehicle or a law enforcement chase in progress.

The location data component references or includes a PIDF-LO as documented in NENA-STA-010[3].

The EIDO incorporates many data elements from NIEM, which in turn, incorporates many different methods of conveying a location, including shapes, coordinates, addresses and others. This is required for interoperability with systems that are conformant with NIEM that are not NG9-1-1 systems. Even when the components of a NIEM-conformant location have the same information as a PIDF-LO, it will not be PIDF-LO and will not be compatible with NG9-1-1 systems. Since there is not a single location type in NIEM, there are many different NIEM-conformant location formats that may be received by an NG9-1-1 system and may be found in an EIDO. Location in NG9-1-1 is expressed as PIDF-LO, so whenever possible, any conveyance of location in an EIDO is preferred to be PIDF-LO, even though a NIEM-conformant location received or conveyed in an EIDO may not be a PIDF-LO. This may require construction of a PIDF-LO when NIEM-conformant location information is received by an NG9-1-1 entity.

When expressing a location in a civic format, the PIDF-LO by itself is unable to describe either a Cross Street or an Intersection. In this document:

- \* An Intersection is a location that is described as the convergence of more than one street, regardless of the orientation of the streets to each other. This includes perpendicular, T-shaped, Y shaped and any other orientation of streets. Intersections have at least two and may have more than two streets. The location is the Intersection itself.

- \* A Cross Street is an additional piece of information about a location, and describes the nearest streets that cross or terminate near the location. The Cross Street can have a perpendicular, T-shaped, Y-shaped or any other orientation of the Cross Street to the street the location is on. The Cross Street is not the location: it is near the location. There could be more than one Cross Street if a location is in, or near the middle of a block, or the Cross Street has multiple street names (such as when a street changes names on either side of the street the location is on).

To represent Intersections and Cross Streets, we use additional PIDF-LOs. The PIDF-LO SHOULD have country, A1, A2, A3 and/or A4, MAY have A5 fields, and MUST have a street name. Implementations MUST be prepared to receive a Cross Street or Intersection PIDF that does not contain one or more of country, A1-A5. If they are missing, they are assumed to be the same as the values in the primary location PIDF. For an Intersection, address number MAY be provided. If present it is interpreted as a block number. For a



Cross Street, a civic address MUST be provided in locationByValue or locationByReferenceUrl. In this case, address number must be provided unless two cross streets are provided or the road ends past the cross street (e.g., cul de sac).

Cross streets and Intersection are represented as separate PIDF object and not multiple location in a single PIDF. Cross Street and Intersection are mutually exclusive. If one is provided, the other MUST NOT be provided.

**Table 2-16 Location Data Component**

JSON Name	Use (required, optional, conditional)	Min	Max	Description
locationTypeDescriptionRegistry Text	Required	1	1	Location type (Caller, Initial, CurrentIncident, Staging, Investigation, Tower Location, Other) as defined in a registry. See Section 3.8, below for the registry description.
locationByValue	Conditional: MUST be populated if Location By Reference is not populated. Otherwise it MUST be omitted.	0	1	The Location Information data component must support all PIDF-LO data elements though many of these elements may not be present in an EIDO. When populated this data element must contain civic or geodetic location elements.

JSON Name	Use (required, optional, conditional)	Min	Max	Description
locationByReferenceUrl	Conditional: MUST be populated if Location By Value is not populated. Otherwise it MUST be omitted.	0	1	A URL that can be dereferenced to obtain the location of the indicated location type. The resulting dereference must support the PIDF- LO data elements defined in Location By Value. This is particularly useful for indicating the location of moving devices such as callers in moving vehicles. The current location of the device can be de-referenced and inserted into the Incident record.
locationDescriptionText	Optional	0	1	Optional text further describing the location type. Note that the Location may be the Caller's location, Incident's location or another type of location depending on the Location Type field.
crossStreetByValue	Optional	0	*	The nearest Cross Street to the Incident's location in PIDF-LO format.
crossStreetByReferenceUrl	Optional	0	*	The URL of the nearest Cross Street to the Incident's location.



JSON Name	Use (required, optional, conditional)	Min	Max	Description
intersectingStreetByValue	Optional	0	*	The nearest Intersection to the Incident's location in PIDF-LO format.
intersectingStreetByReferenceUrl	Optional	0	*	The URL of the nearest Intersection to the Incident's location.
cellTowerSectorId	Optional	0	1	Text field contain the ID of the nearest cell tower and the sector/face of the tower receiving the call. May be used with the "Provided By" field of the PIDF-LO to identify the carrier if carrier specific data is needed.
additionalDataReference	Optional	0	*	Reference to Additional Data Data Component. Contains additional data associated with a location.
notesReference	Optional	0	*	Reference to a Notes Data Component. Contains optional alphanumeric text further describing the location.

## 2.19 Additional Data Data Component

**Data Component Use:** Optional Component

**Minimum:** 0

**Maximum:** \*

10/19/2021

Page 46 of 199



**Child Of:** Emergency Incident Data Object

**Data Component Description:** This data component is optional and is used to exchange information about individuals, call or location associated with a call received by an agent handling the Incident. This data component is used to track and exchange this information as defined in RFC7852.

**Table 2-17 Additional Data Data Component**

JSON Name	Use (required, optional, conditional)	Min	Max	Description
additionalDataByReferenceUrl	Conditional: MUST be populated if additionalDataDetail is not populated. Otherwise it MUST be omitted.	0	1	The URL is a link to additional information data component received about the parent. Allow the dereferencing of additional information associated with a call related to the Incident.
additionalDataByValue	Conditional: MUST only be populated if additionalDataURL is not populated. Otherwise it MUST be omitted.	0	1	If additional data associated with a call is sent by value these fields contain the information.
urlPurpose	Conditional: MUST be populated if a purpose have been sent along with the URL	0	1	Purpose that accompanied the URL. For example, the purpose parameter sent with the URL in the Call-Info headers.
notesReference	Optional	0	*	Reference to a Notes Data Component. Contains notes and comments related to the Additional Data that were entered by agents and emergency responders.

## 2.20 Emergency Resource Data Component

**Data Component Use:** Optional Component

**Minimum:** 0

**Maximum:** \*

**Child Of:** Emergency Incident Data Object

**Data Component Description:** An emergency resource can be a vehicle, a person (foot patrol), an organizational unit such as a squad or strike team, and other emergency responder configurations. An emergency resource is described by a unique unit ID and unit type. There may be multiple Emergency Resource data components where multiple emergency resources are dispatched to a single Incident. When resources are assigned to an Incident by a dispatcher, then the parent data component is Dispatch Information and the same agency and agent that entered the information contained in the Dispatch Information data component entered the information contained in the Emergency Resource data component. However, when resources update their status or change the Incident, then the parent data component is the EIDO Header. Agent Information data components references of Emergency Resource instances identify the individuals associated with the emergency response unit; for example officer Jeff Smith and John Jones are currently operating (riding in) engine number 52.

In this data component, the identifier (\$id) is the unit ID. Format of the identifier is defined as resource@AgencyId eg: engine52@riversideFD.riverside.ca.

**Table 2-18 Emergency Resource Data Component**

JSON Name	Use (required, optional, conditional)	Min	Max	Description
emergencyResourceTypeCommonRegistryText	Required	1	1	A standard code for an emergency type (FireTruckLadder, PatrolUnit, etc.). Restricted to values in EIDO-EmergencyResourceType-Common



JSON Name	Use (required, optional, conditional)	Min	Max	Description
				registry (see Section 3.11, below).
emergencyResourceTypeInternalText	Optional	0	1	A local code for an emergency resource type.
resourceAttributeRegistryText	Required	0	*	A standard code for an emergency resource attribute (skill and equipment) possessed by an emergency resource). Restricted to values in EIDO-ResourceAttribute registry (see Section 3.12, below).
emergencyResourceName	Optional	0	1	Common name of the emergency resource.
primaryUnitStatusRegistryText	Required	1	1	The common, globally unique, status that sets the emergency resource's ability to be assigned to an emergency Incident. An emergency resource can only have one Primary Unit Status-Common at any given time. Available options for Primary Unit Status-



JSON Name	Use (required, optional, conditional)	Min	Max	Description
				Common are contained the "EIDO-PrimaryUnitStatus-Common" registry. See Section 3.9, below, for the registry description. Agencies should map their Unit Status-Internal to the most appropriate combination of Primary Unit Status-Common and Secondary Unit Status-Common available in the registry.
secondaryUnitStatusRegistryText	Required	1	*	Globally unique, statuses that further qualifies the Primary Unit Status by providing more detail about the associated Primary status. Some systems may not be able to handle Secondary statuses, which is acceptable, but not recommended.



JSON Name	Use (required, optional, conditional)	Min	Max	Description
				Available options for Secondary Unit Status-Common are contained the "EIDO-SecondaryUnitStatus-Common" registry. See Section 3.10, below, for the registry description. Agencies should map their Unit Status- Internal to the most appropriate combination of Primary Unit Status-Common and Secondary Unit Status-Common available in the registry.
notesReference	Optional	0	*	Reference to a Notes Data Component. Contains notes and comments related to the status of an emergency responder (e.g., time that status is expected to change, etc.)

JSON Name	Use (required, optional, conditional)	Min	Max	Description
unitStatusInternal	Optional	0	*	Local or internal status of a response unit. May be meaningful only to the owning agency and possibly to other closely affiliated agencies. Some systems may not be able to handle multiple Unit Statuses-Internal.
agentReference	Required	1	*	Reference to an Agent Data Component. Identifies the agents currently staffing the emergency responder unit and the agency to which the unit belongs. If the responding unit updated the Incident directly on their FRC, then the agent role identifies which individual entered the information as well as their role in the emergency response unit (driver, passenger, etc.).

<b>JSON Name</b>	<b>Use (required, optional, conditional)</b>	<b>Min</b>	<b>Max</b>	<b>Description</b>
unitLocationReference	Optional	0	1	Reference to an Location Data Component. Valid location of the unit at the time indicated by the Date/Time Stamp.
unitDestinationReference	Optional	0	1	Reference to an Location Data Component. Location where the Emergency Resource is going.
eta	Optional	0	1	Timestamp of when the unit is expected to reach it's destination
personReference	Optional	0	*	Reference to a Person Data Component. Contains person information entered or updated directly by an emergency responder.
vehicleReference	Optional	0	*	Reference to a Vehicle Data Component. Contains vehicle information entered or updated directly by an emergency responder. Represent the



JSON Name	Use (required, optional, conditional)	Min	Max	Description
				vehicle(s) used by the Emergency Resource.

## 2.21 Alarms and Sensors Data Component

**Data Component Use:** Optional Component

**Minimum:** 0

**Maximum:** \*

**Child Of:** Emergency Incident Data Object

**Data Component Description:** This Data Component is only used to support the exchange of the legacy APCO CSAA ANS interface [12]. There may not be an i3 call associated with this alarm. The Incident Record Handling FE will have a direct interface that supports APCO CSAA ANS and the FE will use it to automatically extract the relevant information and create an Incident. This data component provides a link to the original information received from the alarm company. Any other form of Alarm or Sensor data will be contained in the Additional Data Associated with a Call.

**Table 2-19 Alarms and Sensors Data Component**

<b>JSON Name</b>	<b>Use (required, optional, conditional)</b>	<b>Min</b>	<b>Max</b>	<b>Description</b>
csaaAlarmInformation	Conditional: MUST be populated if alarmURL is not populated . Otherwise it MUST be omitted.	0	1	Original automated alarm data that triggered the creation of the Incident. Read in NIEM schema Alarm and Sensor data. For Alarms this would be the APCO/CSAA ANS 2.101.2-2014 [12] standard.
alarmUrl	Conditional: MUST be populated if CSAAAlarmInformation is not populated. Otherwise it MUST be omitted.	0	1	Link to the automated alarm data that initiated the Incident. There may be more than one transmission for a single Incident. Enable the receiving agency to dereference and obtain the original alarm information that triggered the Incident.
agentReference	Optional	0	1	Reference to an Agent Data Component. Identifies the agent and agency that processed the Alarm/Sensor information described in this data component. Defaults to the Agent Information included in the EIDO header, if this data component is not present.
notesReference	Optional	0	*	Reference to a Notes Data Component. Contains optional alphanumeric text further describing the Incident.

### 3 IANA Actions

This section describes the registries defined for the Data Components contained in Chapter 2 of the document.

Each defined registry is linked to one or more data elements specified in the data components contained in Chapter 2 (Data Associated with an Emergency Incident). Each registry is named after the data element that uses it and includes references to the Data Components that contain the registry's data element.

#### 3.1 Agency Role Registry

The "Agency Role" data element is described in Section 2.6 (Agency Data Component) of the document.

IANA is requested to add the following values to the "EIDO-AgencyRole" registry.

**Table 3-1 Agency Role Registry**

Value	Literal Description	Reference
Assisting	An agency is assisting on, or being consulted regarding an Incident.	This document
CallReceiving	The Agency that received the emergency call.	This document
Dispatched	The Agency that had emergency resources dispatched to an Incident.	This document
Dispatching	The Agency that dispatched emergency resources to an Incident.	This document
Informational	An agency is receiving information regarding an Incident, but is not otherwise participating.	This document
TransferredTo	The Agency to which the emergency call is being transferred.	This document

#### 3.2 Incident Type – Common Registry

The "Incident Type – Common" data element is described in Section 2.9 (Incident Data Component) and Section 2.13 (Dispatch Data Component) of the document.



IANA is requested to add the following values to the "EIDO-IncidentType-Common" registry.

**Table 3-2 Incident Type – Common Registry**

Value	Literal Description	Reference
NONEMERG	The Incident is not an emergency.	This document
911H	9-1-1 Hang Up	APCO 2.103.2-2019
911OPN	9-1-1 Open Line	APCO 2.103.2-2019
ABDOM	Abdominal Pain or Problems	APCO 2.103.2-2019
ABDUCTF	Abduction Family	APCO 2.103.2-2019
ABDUCTNF	Abduction Non-Family	APCO 2.103.2-2019
ABUSE	Abuse	APCO 2.103.2-2019
ACCIND	Industrial Accident	APCO 2.103.2-2019
ACTSHOOT	Active Shooter	APCO 2.103.2-2019
ADMIN	Administrative	APCO 2.103.2-2019
AIR	Aircraft Related Incidents	APCO 2.103.2-2019
AIRINC	Airport Incident (not Aircraft)	APCO 2.103.2-2019
ALIEN	Immigration	APCO 2.103.2-2019
ALLERGIC	Allergic Reaction, Insect Stings	APCO 2.103.2-2019
ALMA	Alarm Audible	APCO 2.103.2-2019
ALMB	Commercial Alarm	APCO 2.103.2-2019
ALMH	Panic/Duress/Hold Up Alarm	APCO 2.103.2-2019
ALMR	Residential Alarm	APCO 2.103.2-2019
ALRBA	Burglar Alarm-Audible	APCO 2.103.2-2019
ALRBOX	Box Alarm	APCO 2.103.2-2019
ALRBS	Burglar Alarm - Silent	APCO 2.103.2-2019
ALRCO	Carbon Monoxide	APCO 2.103.2-2019
ALRCO2	Fire Alarm - CO2	APCO 2.103.2-2019
ALRDEFIB	Automated Implantable Cardiac Defibrillator (AICD) Alarm or Event	APCO 2.103.2-2019
ALRF	Generic Fire Alarm	APCO 2.103.2-2019
ALRGAS	Fire Alarm - Gas	APCO 2.103.2-2019
ALRHEAT	Fire Alarm - Heat	APCO 2.103.2-2019
ALRKPAD	Fire Alarm - Keypad	APCO 2.103.2-2019
ALRMED	Medical Alarm	APCO 2.103.2-2019



Value	Literal Description	Reference
ALRNGAS	Fire Alarm - Natural Gas	APCO 2.103.2-2019
ALRPANA	Panic Alarm Audible	APCO 2.103.2-2019
ALRPANS	Panic Alarm Silent	APCO 2.103.2-2019
ALRPROP	Fire Alarm - Propane	APCO 2.103.2-2019
ALRPULL	Fire Alarm - Pull Station	APCO 2.103.2-2019
ALRROBA	Robbery Alarm Audible	APCO 2.103.2-2019
ALRROBS	Robbery Alarm Silent	APCO 2.103.2-2019
ALRU	Alarm Unknown	APCO 2.103.2-2019
ALRVEH	Vehicle Alarm	APCO 2.103.2-2019
ALRWTR	Fire Alarm - Water Flow	APCO 2.103.2-2019
ALS	Advanced Life Support Incident	APCO 2.103.2-2019
ANIMAL	Animal	APCO 2.103.2-2019
ASSAULT	With or Without Injury	APCO 2.103.2-2019
ASSIST	Assist to Other Agency or Request for Manpower	APCO 2.103.2-2019
ATL	ATL	APCO 2.103.2-2019
BACK	Non-Traumatic	APCO 2.103.2-2019
BARICADE	Barricaded	APCO 2.103.2-2019
BIO	Biological Threat	APCO 2.103.2-2019
BITE	Animal Bites or Attack by an Animal	APCO 2.103.2-2019
BLDCLPSE	Collapsed Building Includes Technical Rescue Incidents	APCO 2.103.2-2019
BLEEDING	Includes Rectal, Vaginal, Non-Traumatic	APCO 2.103.2-2019
BLS	Basic Life Support Incident	APCO 2.103.2-2019
BOMB	Bomb Threat Or Investigation	APCO 2.103.2-2019
BRGCLPSE	Bridge Collapse	APCO 2.103.2-2019
BURGLARY	Burglary	APCO 2.103.2-2019
BURN	Burns	APCO 2.103.2-2019
CARDIAC	Cardiac Related Event, Heart Attack, Chest Pain	APCO 2.103.2-2019
CARJACK	Carjack	APCO 2.103.2-2019
CDX	Civil Dispute	APCO 2.103.2-2019
CHEMICAL	Includes Chemical and Environmental Incidents	APCO 2.103.2-2019



Value	Literal Description	Reference
CHESPAIN	Chest Pain Non-Cardiac	APCO 2.103.2-2019
CHOKE	Choking	APCO 2.103.2-2019
CITASST	Public Assistance, Citizen Standby, Public Service	APCO 2.103.2-2019
CIVDIS	Civil Disobedience	APCO 2.103.2-2019
CIVIL	Civil	APCO 2.103.2-2019
CNTRFT	Counterfeit Money	APCO 2.103.2-2019
COURT	Court Order Serve	APCO 2.103.2-2019
CRIMPS	Impersonation	APCO 2.103.2-2019
CRIMTRAF	Criminal Traffic	APCO 2.103.2-2019
CRWD	Large, Rowdy Crowd	APCO 2.103.2-2019
CU1	Civil Unrest Violent	APCO 2.103.2-2019
CU2	Civil Unrest Non-Violent	APCO 2.103.2-2019
CU3	Civil Unrest Information	APCO 2.103.2-2019
CURFEW	Curfew Violation	APCO 2.103.2-2019
CUST	Custodial Issues	APCO 2.103.2-2019
DEATH	Obvious Death, Found Body	APCO 2.103.2-2019
DEATHNTF	Death Notification	APCO 2.103.2-2019
DIABETIC	Diabetic	APCO 2.103.2-2019
DISORD	Disorderly	APCO 2.103.2-2019
DISVEH	Disabled Vehicle	APCO 2.103.2-2019
DMPX	Person Dumping Rubbish, In Progress	APCO 2.103.2-2019
DROWN	Drowning	APCO 2.103.2-2019
DRUGPAR	Drug Paraphernalia	APCO 2.103.2-2019
DRUGS	Drugs	APCO 2.103.2-2019
DUI	DUI	APCO 2.103.2-2019
DVA	Domestic Violent	APCO 2.103.2-2019
DVNA	Domestic Non-Violent	APCO 2.103.2-2019
EDP	EDP, Emotional Disturbance, Abnormal Behavior	APCO 2.103.2-2019
ELEC	Includes Struck By Lightning	APCO 2.103.2-2019
ELECHZD	Electrical Hazard	APCO 2.103.2-2019
ELUDING	Eluding	APCO 2.103.2-2019



Value	Literal Description	Reference
ENTRAP	Includes Accidental Entrapments and Inaccessible Incidents	APCO 2.103.2-2019
ESCAPE	Escape	APCO 2.103.2-2019
EXPLOS	Explosion	APCO 2.103.2-2019
EXPOSURE	Heat or Cold Exposure	APCO 2.103.2-2019
EXTORT	Extort	APCO 2.103.2-2019
EYE	Eye Problems or Injury	APCO 2.103.2-2019
FAIRC	Fire Aircraft	APCO 2.103.2-2019
FALL	Fall	APCO 2.103.2-2019
FAM	Family Offense	APCO 2.103.2-2019
FAPT	Fire Apartment	APCO 2.103.2-2019
FARSON	Fire Arson	APCO 2.103.2-2019
FAS	Felonious Assault - No Suspect	APCO 2.103.2-2019
FASX	Felonious Assault - Suspect In Area	APCO 2.103.2-2019
FBRUSH	Includes Trees, Brush, Grass, Controlled Burns with No Structural Exposure, Outdoor Fires	APCO 2.103.2-2019
FELEC	Fire Electrical, Includes Arcing Wires, Shorted Electrical Equipment, Light Ballast, Transformers.	APCO 2.103.2-2019
FFUEL	Includes Gas Stations, Fuel Refinery	APCO 2.103.2-2019
FIGHT	Fight	APCO 2.103.2-2019
FIREWRKS	Fireworks	APCO 2.103.2-2019
FMARINE	Fire Marine, Includes Marine Vessels & Boats On Waterways (For Boats On Land Use Fire Vehicle)	APCO 2.103.2-2019
FORCENTR	Includes Breech, Forcible Entry Required For Structure, Residential Lock Outs	APCO 2.103.2-2019
FOTHER	Includes Other Types Not Listed	APCO 2.103.2-2019
FRAUD	Fraud, Bad Checks, ID Theft, Counterfeit Money	APCO 2.103.2-2019
FREPORT	Response to take Fire Report Only, No Active Fire, Incident Not In Progress	APCO 2.103.2-2019



Value	Literal Description	Reference
FSMOKE	Fire Smoke, Includes Fire Investigations, Smoke Odors No Flames Seen	APCO 2.103.2-2019
FSTRU	Includes Sheds, Attached Garages, House Fires	APCO 2.103.2-2019
FTRAILER	Fire Trailer	APCO 2.103.2-2019
FTRAIN	Any Type of Railway Fire, Locomotive, Rail Car, Passenger Car, Etc.	APCO 2.103.2-2019
FTRASH	Fire Trash, Refuse Fires, Garbage Cans, Dumpsters	APCO 2.103.2-2019
FTRUCK	Includes Large Vehicles Such As Rv, Tractor Trailers, Dump Trucks, Buses	APCO 2.103.2-2019
FUNK	Fire Unknown	APCO 2.103.2-2019
FVEH	Fire Vehicle	APCO 2.103.2-2019
FVEH	Includes Small or Medium Size Vehicles, Cars, SUVs, Cans, Pick-Up Trucks	APCO 2.103.2-2019
GASLEAK	Includes Natural Gas, Liquid Fuel or Propane Leaks	APCO 2.103.2-2019
GASLEAKI	Gas Leak Inside	APCO 2.103.2-2019
GASLEAKO	Gas Leak Outside	APCO 2.103.2-2019
HARR	Harassment	APCO 2.103.2-2019
HATE	Hate Crime	APCO 2.103.2-2019
HAZ	Wires Down, Other Natural Hazards	APCO 2.103.2-2019
HAZMAT	Hazardous Materials Incident Can Include Large Fuel Spill (>100 Gallons), Chemical, Biological, Radiological or Nuclear	APCO 2.103.2-2019
HEADACHE	Headache	APCO 2.103.2-2019
HEMRG	Hemorrhage	APCO 2.103.2-2019
HLP1	Police/Fire/EMS In Trouble	APCO 2.103.2-2019
HLP2	Police/Fire/EMS Nonemergency	APCO 2.103.2-2019
HOLD	Citizen/Security Holding Suspect	APCO 2.103.2-2019
HOMICIDE	Homicide	APCO 2.103.2-2019
HOSTAGE	Hostage	APCO 2.103.2-2019
IMP	Impersonation	APCO 2.103.2-2019



Value	Literal Description	Reference
INDECENT	Indecent	APCO 2.103.2-2019
INFO	Information	APCO 2.103.2-2019
INTERNET	Internet Crimes	APCO 2.103.2-2019
INTOX	Intoxicated	APCO 2.103.2-2019
INVEST	Investigation	APCO 2.103.2-2019
JUV	Juvenile Offense	APCO 2.103.2-2019
LARCENY	Larceny	APCO 2.103.2-2019
LIQUOR	Liquor Violation	APCO 2.103.2-2019
MAJORINC	Major Incident	APCO 2.103.2-2019
MAYDAY	Mayday	APCO 2.103.2-2019
MAYDAY	Immediate Assistance, Request, Emergency Back-Up Request	APCO 2.103.2-2019
MCI	MCI - Typically Used As A Code Declared By Incident Command	APCO 2.103.2-2019
MISBOATR	Missing Boater	APCO 2.103.2-2019
MISCON	Misconduct	APCO 2.103.2-2019
MNTL	Mental Person Non-Violent	APCO 2.103.2-2019
MTLV	Mental Person Violent	APCO 2.103.2-2019
MVA	Motor Vehicle Accident, No Injury - Can Be Received As Automated Crash Notification	APCO 2.103.2-2019
MVAHR	Hit & Run	APCO 2.103.2-2019
MVAIJY	Motor Vehicle Accident With Injury - can be received rs Automated Crash Notification, includes Car, Pedestrian, ATV Accidents	APCO 2.103.2-2019
MVAUNK	MVA Unk	APCO 2.103.2-2019
MVCP	Motor Vehicle Collision on Private Property	APCO 2.103.2-2019
NCIC	NCIC Hit	APCO 2.103.2-2019
NCRASLTWF	Assault with Weapon	APCO 2.103.2-2019
NCRCPRF	Medical - Cardiopulmonary Resuscitation	APCO 2.103.2-2019
NCRELEV	Rescue - Elevator	APCO 2.103.2-2019



Value	Literal Description	Reference
NCRFACTR	Approved, Field Infusion Of Blood Products Necessary For Life-Saving Intervention	APCO 2.103.2-2019
NCRMUAIDF	Mutual Aid Fire	APCO 2.103.2-2019
NCRNDE	Notification Event, Local Only, No Units Dispatched	APCO 2.103.2-2019
NCRNONE	None - No Code Found	APCO 2.103.2-2019
NCRTASKFORCE	Task Force	APCO 2.103.2-2019
NCRTESTF	Test Call - Fire	APCO 2.103.2-2019
NCRTRANS	Transportation Incident, includes Planes, Trains, Subway, Etc.	APCO 2.103.2-2019
NEGLECT	Neglect	APCO 2.103.2-2019
NOISE	Noise	APCO 2.103.2-2019
OD	Overdose - Accidental, Poisoning, Accidental Ingestion	APCO 2.103.2-2019
ODOR	Odor Investigation - any type	APCO 2.103.2-2019
OPEN	Unsecure-Bldg	APCO 2.103.2-2019
ORDERV	Order Violation	APCO 2.103.2-2019
PANDEMIC	Pandemic Flu or Illness Outbreak, Epidemic	APCO 2.103.2-2019
PARKING	Parking	APCO 2.103.2-2019
PERFND	Found Person	APCO 2.103.2-2019
PERMISS	Missing Person	APCO 2.103.2-2019
PERSUSP	Suspicious Person	APCO 2.103.2-2019
PERUNCON	Unconscious Person, includes Fainting and Near Fainting	APCO 2.103.2-2019
PERWANT	Wanted Person	APCO 2.103.2-2019
PHANDLE	Panhandling	APCO 2.103.2-2019
PREG	Pregnancy Problems, Childbirth, Miscarriage	APCO 2.103.2-2019 APCO 2.103.2-2019
PROPFND	Found Property	APCO 2.103.2-2019
PROPLOST	Lost Property	APCO 2.103.2-2019
PROPSTLN	Stolen Property	APCO 2.103.2-2019





Value	Literal Description	Reference
PROW	Prowler	APCO 2.103.2-2019
PUBWKS	Public Works / Utilities	APCO 2.103.2-2019
PURSUIT	Pursuit	APCO 2.103.2-2019
RADIAT	Includes Nuclear Incidents	APCO 2.103.2-2019
RECKDRV	Reckless Driver	APCO 2.103.2-2019
REPO	Repo	APCO 2.103.2-2019
RESCUE	Includes Lock-Ins, High Angle Rescue	APCO 2.103.2-2019
RESIST	Resisting Arrest	APCO 2.103.2-2019
RESP	Difficulty Breathing, Shortness Of Breath, Respiratory Issue	APCO 2.103.2-2019
RESPARR	Respiratory Arrest	APCO 2.103.2-2019
ROBBERY	Robbery	APCO 2.103.2-2019
RUNAWAY	Runaway	APCO 2.103.2-2019
SAR	Search And Rescue	APCO 2.103.2-2019
SCH	School Offense	APCO 2.103.2-2019
SCRM	Person Screaming	APCO 2.103.2-2019
SEIZURE	Includes Convulsions	APCO 2.103.2-2019
SEXOFFNS	Sex Offense	APCO 2.103.2-2019
SHOOT	Shooting	APCO 2.103.2-2019
SHOPLIFT	Shoplifting	APCO 2.103.2-2019
SICK	Sick Person Non-Specific, General Illness, Flu	APCO 2.103.2-2019
SLMP	Person Slumped In Vehicle	APCO 2.103.2-2019
SMOKING	Smoking	APCO 2.103.2-2019
SOL	Solicitors	APCO 2.103.2-2019
STABBING	Stabbing	APCO 2.103.2-2019
STDBY	Police, Fire Or EMS	APCO 2.103.2-2019
STKX	Stalking With Suspect On Scene	APCO 2.103.2-2019
STROKE	Stroke Or Cerebral Vascular Accident (Cva)	APCO 2.103.2-2019 APCO 2.103.2-2019
SUBJSTP	Subject Stop	APCO 2.103.2-2019
SUICIDE	Suicide	APCO 2.103.2-2019
SUICHTRT	Attempt Or Threatening Suicide	APCO 2.103.2-2019





Value	Literal Description	Reference
SUSP	Suspicious Incident,Circumstances, Unknown Problems	APCO 2.103.2-2019
TERROR	Terrorist Activity	APCO 2.103.2-2019
THAZ	Traffic Hazard	APCO 2.103.2-2019
THREATS	Threats	APCO 2.103.2-2019
TOW	Tow	APCO 2.103.2-2019
TRAIN	Incidents Other Than Fires or Derailments Related to Trains	APCO 2.103.2-2019
TRAINDRL	Train Derail	APCO 2.103.2-2019
TRANSFER	Inter-Facility Transfer, Palliative Care, also Used For Transfer of Apparatus Between Jurisdictions.	APCO 2.103.2-2019
TRAUMA	Traumatic Injury including Head Injury	APCO 2.103.2-2019
TRAUMAP	Penetrating Trauma	APCO 2.103.2-2019
TRESPASS	Trespass	APCO 2.103.2-2019
TROUBLE	Unknown Type Trouble	APCO 2.103.2-2019
TRUANT	Truant	APCO 2.103.2-2019
TSTOP	Traffic Stop	APCO 2.103.2-2019
VAG	Vagrant/Panhandler	APCO 2.103.2-2019
VANDAL	Vandalism	APCO 2.103.2-2019
VEHABND	Abandoned Veh	APCO 2.103.2-2019
VEHASST	Motorist Assist	APCO 2.103.2-2019
VEHLOCK	Vehicle Lock Out	APCO 2.103.2-2019
VEHREC	Recovered Vehicle	APCO 2.103.2-2019
VEHSTLN	Stolen Vehicle	APCO 2.103.2-2019
VEHSUSP	Suspicious Vehicle	APCO 2.103.2-2019
VICE	Vice	APCO 2.103.2-2019
WARRANT	Search Warrant	APCO 2.103.2-2019
WATER	All Water Incidents, Diving & Scuba Accidents, Boat/Jet Ski Accident, Water	APCO 2.103.2-2019
WEAPON	Weapon Violation	APCO 2.103.2-2019
WELFARE	Man Down Check, Welfare Check	APCO 2.103.2-2019
WILDLIFE	Wildlife Violations	APCO 2.103.2-2019
WIRES	Wires Down	APCO 2.103.2-2019



Value	Literal Description	Reference
XTRICATE	Confined Space Rescue, Vehicle Extrication	APCO 2.103.2-2019

### 3.3 Incident Status-Common

The “Incident Status-Common” data element is described in Section 2.9 (Incident Information Data Component) of this document.<sup>2</sup>

IANA is requested to add the following values to the “EIDO-IncidentStatus-Common” registry.

**Table 3-3 Incident Status – Common Registry**

Value	Literal Description	Reference
Active	The Incident is active.	This document
Cancelled	Incident cancelled.	This document
Closed	Incident closed.	This document
FireUnderControl	Emergency responder has declared that a fire is under control.	This document
NewLocation	The Incident’s location has changed.	This document
ReOpened	Incident has been re-opened.	This document
ResourcesAssigned	Incident has had at least one emergency resource assigned to it.	This document
ResourcesEnroute	At least one emergency resource is en route to the Incident.	This document
ResourcesOnscene	At least one emergency resource has arrived at the location (on scene) of the Incident.	This document
StructureCleared	Emergency responder has declared that the structure has been cleared.	This document

---

<sup>2</sup> The goal of the incident statuses contained in the registry is to use distinct entries that are readily identifiable by agents receiving an EIDO. Multiple incident statuses may be used to specify complex situations such as an active fire incident that has had a structure cleared. In this case, the following incident statuses could be assigned: “Active” and “StructureCleared.” Incident status codes may be used to indicate either when a particular event occurred during the incident (patient contact) and/or when the incident’s status has changed (ResourcesOnscene).

### 3.4 Report Number Type

The "Report Number Type" data element is described in Section 2.9 (Incident Data Component) of this document.

IANA is requested to add the following values to the "EIDO-ReportNumberType" registry.

**Table 3-4 Report Number Type Registry**

Value	Literal Description	Reference
New	The report number is new	This document
Ongoing	The report number has not changed	This document
Reopened	The report number was previously issued, the related Incident was closed and the report and/or Incident are being activated again	This document

### 3.5 Common Disposition Codes

The "Disposition Type" data element is described in Section 2.14 (Disposition Data component) of this document. The initial values for this registry are adopted from APCO ANS 1.111.2-2018: Common Disposition Codes for Data Exchange.<sup>3</sup>

IANA is requested to add the following values to the "EIDO-CommonDispositionCode" registry. Because APCO ANS 1.111.2-2018 uses a two-digit integer as an incident status code, IANA is also requested to hold values 46-100 for future versions of the standard.

**Table 3-5 Common Disposition Codes Registry**

Value	Literal Description	Reference
01	Report Taken	APCO ANS 1.111.2-2018
02	No Report Taken	APCO ANS 1.111.2-2018
03	Arrest	APCO ANS 1.111.2-2018
04	Citation Issued (Verbal Or Written)	APCO ANS 1.111.2-2018
05	Assignment Completed/Settled By Phone Contact	APCO ANS 1.111.2-2018
06	Broadcast/Attempt to Locate (ATL)	APCO ANS 1.111.2-2018

---

<sup>3</sup> Available at [https://www.apcointl.org/download/apco\\_ans\\_1-111-2-2018-disposition-codes/?wpdmdl=5997&ind=0](https://www.apcointl.org/download/apco_ans_1-111-2-2018-disposition-codes/?wpdmdl=5997&ind=0). Retrieved 22 April 2021.

07	Civil	APCO ANS 1.111.2-2018
08	Follow-Up Report Taken	APCO ANS 1.111.2-2018
09	Summons/Infraction Issued	APCO ANS 1.111.2-2018
10	Event Cancelled	APCO ANS 1.111.2-2018
11	Field Interview	APCO ANS 1.111.2-2018
12	Property (Seized Or Found)	APCO ANS 1.111.2-2018
13	Information/Administrative	APCO ANS 1.111.2-2018
14	Gone On Arrival (GOA)/Unable To Locate (UATL)	APCO ANS 1.111.2-2018
15	Referred to partner agency/Animal Control/Medics/Fire, etc	APCO ANS 1.111.2-2018
16	Transport/Escort Given	APCO ANS 1.111.2-2018
17	False Alarm caused by: Weather, Power Outage/Other Related Cause/Animal	APCO ANS 1.111.2-2018
18	Assignment Completed/Settled By Contact	APCO ANS 1.111.2-2018
19	Building Condemned	APCO ANS 1.111.2-2018
20	Building Secure	APCO ANS 1.111.2-2018
21	Unit Cancelled enroute	APCO ANS 1.111.2-2018
22	Cancelled - Duplicate Call	APCO ANS 1.111.2-2018
23	Fire Control or Extinguishment (NFIRS 10)	APCO ANS 1.111.2-2018
24	Search and Rescue (NFIRS 20)	APCO ANS 1.111.2-2018
25	EMS and Transport (NFIRS 30)	APCO ANS 1.111.2-2018
26	Hazardous Condition (NFIRS 40)	APCO ANS 1.111.2-2018
27	Fires, Rescues and Hazardous Conditions (NFIRS 50)	APCO ANS 1.111.2-2018
28	Systems and Services (NFIRS 60)	APCO ANS 1.111.2-2018
29	Assistance (NFIRS 70)	APCO ANS 1.111.2-2018
30	Information, Investigation, and Enforcement (NFIRS 80)	APCO ANS 1.111.2-2018
31	Fill-In, Standby (NFIRS 90)	APCO ANS 1.111.2-2018
32	Cancelled (Prior to Arrival at Scene)	APCO ANS 1.111.2-2018
33	Patient Treated, Transported by Law Enforcement	APCO ANS 1.111.2-2018



34	Patient Treated, Transported by Private Vehicle	APCO ANS 1.111.2-2018
35	Standby-No Services or Support Provided	APCO ANS 1.111.2-2018
36	Standby-Public Safety, Fire, or EMS Operational Support	APCO ANS 1.111.2-2018
37	Transport of Body Parts or Organs Only	APCO ANS 1.111.2-2018
38	No Patient Found	APCO ANS 1.111.2-2018
39	Patient Dead at Scene-No EMS Transport	APCO ANS 1.111.2-2018
40	Patient Dead at Scene-Transported by EMS	APCO ANS 1.111.2-2018
41	Patient Evaluated, No Treatment/Transport Required	APCO ANS 1.111.2-2018
42	Patient Refused Evaluation/Care	APCO ANS 1.111.2-2018
43	Patient Treated, Released (Without Transport)	APCO ANS 1.111.2-2018
44	Patient Treated, Transferred Care to Another EMS	APCO ANS 1.111.2-2018
45	Patient Treated, Transported by EMS	APCO ANS 1.111.2-2018
46	RESERVED	Future release of APCO ANS 1.111.x
47	RESERVED	Future release of APCO ANS 1.111.x
48	RESERVED	Future release of APCO ANS 1.111.x
49	RESERVED	Future release of APCO ANS 1.111.x
50	RESERVED	Future release of APCO ANS 1.111.x
51	RESERVED	Future release of APCO ANS 1.111.x
52	RESERVED	Future release of APCO ANS 1.111.x
53	RESERVED	Future release of APCO ANS 1.111.x
54	RESERVED	Future release of APCO ANS 1.111.x
55	RESERVED	Future release of APCO ANS 1.111.x



56	RESERVED	Future release of APCO ANS 1.111.x
57	RESERVED	Future release of APCO ANS 1.111.x
58	RESERVED	Future release of APCO ANS 1.111.x
59	RESERVED	Future release of APCO ANS 1.111.x
60	RESERVED	Future release of APCO ANS 1.111.x
61	RESERVED	Future release of APCO ANS 1.111.x
62	RESERVED	Future release of APCO ANS 1.111.x
63	RESERVED	Future release of APCO ANS 1.111.x
64	RESERVED	Future release of APCO ANS 1.111.x
65	RESERVED	Future release of APCO ANS 1.111.x
66	RESERVED	Future release of APCO ANS 1.111.x
67	RESERVED	Future release of APCO ANS 1.111.x
68	RESERVED	Future release of APCO ANS 1.111.x
69	RESERVED	Future release of APCO ANS 1.111.x
70	RESERVED	Future release of APCO ANS 1.111.x
71	RESERVED	Future release of APCO ANS 1.111.x
72	RESERVED	Future release of APCO ANS 1.111.x
73	RESERVED	Future release of APCO ANS 1.111.x



74	RESERVED	Future release of APCO ANS 1.111.x
75	RESERVED	Future release of APCO ANS 1.111.x
76	RESERVED	Future release of APCO ANS 1.111.x
77	RESERVED	Future release of APCO ANS 1.111.x
78	RESERVED	Future release of APCO ANS 1.111.x
79	RESERVED	Future release of APCO ANS 1.111.x
80	RESERVED	Future release of APCO ANS 1.111.x
81	RESERVED	Future release of APCO ANS 1.111.x
82	RESERVED	Future release of APCO ANS 1.111.x
83	RESERVED	Future release of APCO ANS 1.111.x
84	RESERVED	Future release of APCO ANS 1.111.x
85	RESERVED	Future release of APCO ANS 1.111.x
86	RESERVED	Future release of APCO ANS 1.111.x
87	RESERVED	Future release of APCO ANS 1.111.x
88	RESERVED	Future release of APCO ANS 1.111.x
89	RESERVED	Future release of APCO ANS 1.111.x
90	RESERVED	Future release of APCO ANS 1.111.x
91	RESERVED	Future release of APCO ANS 1.111.x



92	RESERVED	Future release of APCO ANS 1.111.x
93	RESERVED	Future release of APCO ANS 1.111.x
94	RESERVED	Future release of APCO ANS 1.111.x
95	RESERVED	Future release of APCO ANS 1.111.x
96	RESERVED	Future release of APCO ANS 1.111.x
97	RESERVED	Future release of APCO ANS 1.111.x
98	RESERVED	Future release of APCO ANS 1.111.x
99	RESERVED	Future release of APCO ANS 1.111.x
100	RESERVED	Future release of APCO ANS 1.111.x

### 3.6 Person Role

The “Person Type” data element is described in Section 2.16 (Person Data Component) of this document.

IANA is requested to add the following values to the “EIDO-PersonRole” registry.

**Table 3-6 Person Role Registry**

Value	Literal Description	Reference
InvolvedPerson	Person described in the Person Information data component is involved in the Incident. Used when no other relationship is known.	This document
Caller	Person described in the Person Information data component is a caller.	This document
Patient	Person described in the Person Information data component is involved in the Incident as a patient.	This document



Value	Literal Description	Reference
PatientAcquaintance	Person described in the Person Information data component is an acquaintance of a patient involved in the Incident.	This document
PatientRelative	Person described in the Person Information data component is a relative of a patient involved in the Incident.	This document
PersonOfInterest	Person described in the Person Information data component is involved in the Incident as a person of interest.	This document
ReportingParty	Person described in the Person Information data component is involved in the Incident as a reporting party.	This document
Suspect	Person described in the Person Information data component is involved in the Incident as a suspect.	This document
Victim	Person described in the Person Information data component is involved in the Incident as a victim.	This document
VictimAcquaintance	Person described in the Person Information data component is an acquaintance of a victim involved in the Incident.	This document
VictimRelative	Person described in the Person Information data component is a relative of a victim involved in the Incident.	This document
Witness	Person described in the Person Information data component is involved in the Incident as a witness.	This document

### 3.7 Vehicle Relationship Type

The “Vehicle Relationship Type” data element is described in Section 2.17 (Vehicle Data Component) of this document.

IANA is requested to add the following values to the “EIDO-VehicleRelationshipType” registry.

**Table 3-7 Vehicle Relationship Type Registry**

<b>Value</b>	<b>Literal Description</b>	<b>Reference</b>
AccidentVehicle	The vehicle described in the Vehicle Information data component is involved in the Incident as an accident vehicle.	This document
InvolvedVehicle	The vehicle described in the Vehicle Information data component is involved in the Incident. Used when no other relationship is known.	This document
SuspectVehicle	The vehicle described in the Vehicle Information data component is involved in the Incident as a suspect's vehicle.	This document
VictimVehicle	The vehicle described in the Vehicle Information data component is involved in the Incident as a victim's vehicle.	This document
WitnessVehicle	The vehicle described in the Vehicle Information data component is involved in the Incident as a witness's vehicle.	This document
ResponseVehicle	The vehicle described in the Vehicle Information data component may be involved in the Incident response.	This document

### **3.8 Location Type**

The "Location Type" data element is described in Section 2.18 (Location Data Component) of this document.

IANA is requested to add the following values to the "EIDO-LocationType" registry.

**Table 3-8 Location Type Registry**

<b>Value</b>	<b>Literal Description</b>	<b>Reference</b>
RoutingLocation	For a location referenced in a call represent the location that was used to route the call. Can be used by other data component to indicate their routing location.	This document
Caller	The Location Information data component contains the caller's location.	This document

CurrentIncident	The Location Information data component contains the current reported location of the Incident. When Incident Location is mentioned, it refers to a Location where Location Type has this value.	This document
InitialIncident	The Location Information data component contains the initial Incident's location.	This document
Investigation	The Location Information data component contains the Incident's investigation location.	This document
Other	Location is unspecified.	This document
Staging	The Location Information data component contains a staging location for emergency responders assigned to the Incident.	This document
TowerLocation	The Location Information data component contains the location of a cell tower that processed the call.	This document
UnitLocation	The Location Information data component contains the location of an emergency responder.	This document

### 3.9 Primary Unit Status-Common

The "Primary Unit Status-Common" data element is described in Section 2.20 (Emergency Resource Data Component) of this document.<sup>4</sup>

IANA is requested to add the following values to the "EIDO-PrimaryUnitStatus-Common" registry.

**Table 3-9 Primary Unit Status-Common Registry**

Value	Literal Description	Reference
Available	Emergency Unit is available for Dispatch.	This document

---

<sup>4</sup> The purpose of the common (global) primary unit statuses is to enable an agency that needs a particular type of resource to ascertain the availability of that resource in a different agency and to either request that resource from the agency that owns it (mutual aid) or to assign it to an incident (automatic aid). In most situations, agreements will be structured between the two agencies enabling automatic and mutual aid.

ConditionallyAvailable	Emergency Unit is assigned to an activity, but is available for dispatch or reassignment.	This document
NotAvailable	Emergency Unit is not available for Dispatch and cannot be assigned to a call.	This document

### 3.10 Secondary Unit Status-Common

The "Secondary Unit Status-Common" data element is described in Section 2.20 (Emergency Resource Data Component) of this document.

IANA is requested to add the following values to the "EIDO-SecondaryUnitStatus-Common" registry.

**Table 3-10 Secondary Unit Status-Common Registry**

Value	Literal Description	Reference
AcknowledgedTransmission	Emergency unit acknowledged receipt of a dispatch/assignment.	This document
AlternateLocation	Emergency unit is at an alternate location when used as a standalone secondary status or is en route to, transporting to, arrived at, etc. when used in combination with another secondary unit status-common.	This document
Arrived	Emergency unit arrived at the Incident location or at some other location.	This document
Assigned	Emergency unit has been assigned to an Incident or to some other event.	This document
AssignmentCancelled	Emergency unit's assignment to an activity has been cancelled. This is an observation useful for tracking unit history and Incident progress.	This document
BacktoAssignedArea	Emergency unit is back to patrolling or covering its assigned area, beat, or district. This is an observation useful for tracking unit history.	This document
Backup	Emergency unit is backing up another emergency unit on an Incident.	This document



Value	Literal Description	Reference
Break	Emergency unit is on a break.	This document
CheckedIn	Emergency unit checked in with its dispatcher. This is an observation useful for tracking unit history and Incident progress.	This document
Cleared	Emergency unit cleared the Incident location or some other location.	This document
COP_or_POP	Emergency unit is involved in Community Oriented Policing or Problem Oriented Policing activities.	This document
Court	Emergency unit is assigned to Court.	This document
CoveringAlternateArea	Emergency unit is patrolling, has moved up, or is covering an alternate area, beat, station, or district when used as a standalone secondary status or is en route to, arrived at, etc. when used in combination with another secondary unit status-common.	This document
Delayed	Emergency unit is delayed from arriving at the Incident's location or some other location.	This document
Departed	Emergency unit has departed a location, where another, simultaneously assigned, secondary unit status-common describes the destination (e.g., Departed and Court).	This document
Dispatched	Emergency unit has been dispatched to an Incident or some other event.	This document
EnRoute	Emergency unit is en route to an Incident location or some other location.	This document
EquipmentIssues	Emergency unit is experiencing equipment issues.	This document
Event	Emergency unit is at an event (parade, concert, etc.) when used as a standalone secondary status-common or is en route to, arrived at, etc. when used in	This document



Value	Literal Description	Reference
	combination with another secondary unit status-common.	
Hospital	Emergency unit is at the hospital when used as a standalone secondary unit status-common or is en route to, transporting to, arrived at, etc. when used in combination with another secondary unit status-common.	This document
InService	Emergency unit is in service.	This document
Investigation	Emergency unit is assigned to investigate an active or closed Incident.	This document
Location	A location other than the Incident that is used with en route, arrived, etc.	This document
Meal	Emergency unit is at lunch, dinner, breakfast or some other meal.	This document
Meeting	Emergency unit is involved in a meeting when used as a standalone secondary unit status-common or is en route to, arrived at, etc. when used in combination with another secondary unit status-common.	This document
OffDuty	Emergency Unit is off duty.	This document
OnDuty	Emergency unit is on duty.	This document
OnScene	Emergency Unit is located at the scene (location) of the Incident.	This document
OutOfService	Emergency unit is out of service.	This document
PatientContact	Emergency responders made contact with a patient involved in the Incident. This is an observation useful for tracking unit history and Incident progress.	This document
Post	Emergency unit is at a post when used as a standalone secondary unit status-common or is en route to, arrived at, etc. when used in combination with another secondary unit status-common.	This document
ResponderInitiatedEvent	Emergency unit is on a self initiated event that is not a traffic stop.	This document



Value	Literal Description	Reference
RollCall	Emergency unit is at Roll Call when used as a standalone secondary unit status-common or is en route to, arrived at, etc. when used in combination with another secondary unit status-common.	This document
Roster	Emergency unit has automatically been activated, but is not yet available and has not checked in.	This document
ShiftPending	Emergency unit's end of shift is pending.	This document
Staging	Emergency unit is at an Incident's staging location when used as a standalone secondary unit status-common or is en route to, arrived at, etc. when used in combination with another secondary unit status-common.	This document
Station	Emergency unit is at its headquarters, station, or substation when used as a standalone secondary unit status-common or is en route to, transporting to, arrived at, etc. when used in combination with another secondary unit status-common.	This document
TrafficStop	Emergency unit is on scene at a self initiated traffic stop.	This document
Training	Emergency unit and responders are participating in a training activity.	This document
Transporting	Emergency unit is transporting or escorting a person or equipment to a location or destination.	This document
Unmanned	Emergency unit is not adequately staffed.	This document

### 3.11 Emergency Resource Type-Common

The "Emergency Resource Type-Common" data element is described in Section 2.20 (Emergency Resource Data Component) of this document.

IANA is requested to add the following values to the "EIDO-EmergencyResourceType-Common" registry

10/19/2021

Page 79 of 199



**Table 3-11 Emergency Resource Type-Common Registry**

Value	Literal Description	Reference
AirAmbulanceFixedWing	Air Ambulance (Fixed-Wing)	This document
AirAmbulanceRotaryWing	Air Ambulance (Rotary-Wing)	This document
AirSearchTeam	Air Search Team	This document
AirborneCommunicationRelayTeamFixedWing	Airborne Communications Relay Team (Fixed-Wing)	This document
FixedWingAircraft	Aircraft, Fixed Wing	This document
RotaryWingAircraft	Aircraft, Rotary Wing	This document
AirborneTransportTeamFixedWing	Airborne Transport Team (Fixed-Wing)	This document
AirCompressor	Air Compressor and Air Refilling	This document
AirConditioner-Heater	Air Conditioner/Heater	This document
ATV	All Terrain Vehicle	This document
GroundALSAmbulance	Ambulance, Advance Life Support (Ground)	This document
LargeAnimalRescueTeam	Large Animal (horse, cow, etc.) Rescue Team	This document
LargeAnimalShelteringTeam	Large Animal (horse, cow, etc.) Sheltering Team	This document
LargeAnimalTransportTeam	Large Animal (horse, cow, etc.) Transport Team	This document
SmallAnimalRescueTeam	Small Animal (cat, dog, etc.) Rescue Team	This document
SmallAnimalShelteringTeam	Small Animal (cat, dog, etc.) Sheltering Team	This document
SmallAnimalTransportTeam	Small Animal (cat, dog, etc.) Transport Team	This document
AssaultHomicideUnit	Assault / Homicide Unit	This document
GroundBLSAmbulance	Ambulance, Basic Life Support (Ground)	This document
BikeTeam	Bike Team	This document
BombSquad	Bomb Squad/Explosives Team	This document
BrushFireEngineType3	Type 3 Brush Fire Engine (120GPM, 500 gal tank, 1000'	This document



Value	Literal Description	Reference
	1.5" or larger, 800' 1 " or larger, 3 crew members)	
BrushFireEngineType4	Type 4 Brush Fire Engine (70 GPM, 750 Gal tank, 300' 1.5" & 300' 1" or larger, 3 crew members)	This document
BrushFireEngineType5	Type 5 Brush Fire Engine (50 GPM, 500 Gal, 300' 1.5" & 300' 1" or larger, 3 crew members)	This document
BrushFireEngineType6	Type 6 Brush Fire Engine (50 GPM, 200 Gal, 300' 1.5" & 300' 1" or larger, 2 crew members)	This document
BrushFireEngineType7	Type 7 Brush Fire Engine (20 GPM, 125 Gal tank, 200 and 200' on 1.5 and 1" hose, 2 crew members)	This document
Bus	Buses	This document
CanineSearchandRescue	Canine Search and Rescue Team	This document
DisasterCollapsedStructureCanineTech	Disaster Collapsed Structure Canine Search Technician	This document
CaveSearchandRescue	Cave Search and Rescue Team	This document
CivilServiceOfficer	Civil Service Officer	This document
CoastGuard	Coast Guard Search and Rescue	This document
CollapseSearchandRescue	Collapse Search and Rescue Teams	This document
CommandLevel4	Initial Responding Resources that arrive on scene	This document
CommandLevel3	Field Supervisor (patrol sergeant, detective sergeant, battalion chief, etc.)	This document
CommandLevel2	Section, Precinct or Division Chief/Commander	This document



Value	Literal Description	Reference
CommandLevel1	Department/Agency chief, sheriff, deputy chief, assistant chief, etc.	This document
CommSupportTeam	Communications Support Team	This document
CommunityPolicingUnit	Community/Neighborhood Policing Unit	This document
Crane	Crane	This document
CrisisInterventionUnit	Crisis Intervention Unit	This document
ResponderCrewTransport	Responder Crew/Team Transport	This document
DetoxTransport	Detox Transport	This document
UnmannedAerialVehicle	Unmanned Aerial Vehicle (Drone)	This document
ElectronicBoard	Electronic Board	This document
FireBoat	Fire Boat	This document
FireTruckLadder	Fire Truck - Aerial (Ladder or Platform)	This document
FireFoamTender	Foam Tender, Firefighting	This document
FoamTank	Foam Tank	This document
ForensicEvidence	Forensic Evidence	This document
FuelTender	Fuel Tender (Gasoline, Diesel, AvGas, aka Gas Tanker)	This document
GangEnforcement	Gang Enforcement	This document
HazMatTeam	HazMat Entry Team	This document
FireHelicopter	Helicopters, Firefighting	This document
HeavyRescue	Heavy Rescue Apparatus	This document
IncidentManagementTeam	Incident Management Team	This document
Investigator	Investigator	This document
LawEnforcementCommandUnit	Law Enforcement Command Unit	This document
PatrolUnit	Law Enforcement Patrol Unit	This document
SchoolOfficer	Law Enforcement School Officer	This document
LightRescue	Light Rescue Apparatus (Jeep and Other Vehicles)	This document



Value	Literal Description	Reference
MaintenanceandRepairTeam	Maintenance and Repair Team - Light Equipment Public Works	This document
ParkingEnforcement	Parking Enforcement	This document
MobileCommunicationCenter	Mobile Communications Center (Also referred to as "Mobile EOC")	This document
MobileSupportVehicle	Mobile Support Vehicle	This document
CrowdControlTeam	Law Enforcement Crowd Control Team	This document
MountedPatrol	Mounted Patrol	This document
MountainSearchandRescueTeam	Mountain Search and Rescue Team	This document
MedicalTransportVehicle	Multi-Patient Medical Transport Vehicle	This document
ParkRanger	Park Ranger	This document
DiveTeam	Public Safety Dive Team	This document
RapidResponseSpecialist	Rapid Response Specialist	This document
RoadSweeper	Road Sweeper	This document
SafetyOfficer	Safety Officer/Chief	This document
SnowBlower	Snow Blower	This document
SnowCat	Snow Cat	This document
StructureFireEngineType1	Type 1 Structure Fire Engine (1000 GPM, 400 Gal tank, 1200' 2.5" hose or larger, 400' 1.5" hose or larger (attack line), 200' 1" hose or larger, ladder 20' or longer, 500GPM master stream, and 4 crew members)	This document
StructureFireEngineType2	Type 2 Structure Fire Engine (500GPM, 400 Gal Tank, hose 1000', 5400', 300' respectively, ladder 20' or longer, no master stream and 3 crew members)	This document
SWAT	SWAT/Tactical Teams	This document



Value	Literal Description	Reference
SwiftwaterRescueTeam	Swiftwater/Flood Search and Rescue Team	This document
VehicularCrimesTeam	Vehicular Crimes Team	This document
Veterinarian	Veterinarian	This document
WaterRescueTeam	Ocean/Lake/Other Water Body Rescue Team	This document
TrafficUnit	Traffic Unit/Officer	This document
TransitOfficer	Transit Officer/Deputy	This document
DumpTruck	Truck, Dump	This document
TowTruck	Truck, Tow (Wrecker)	This document
PlowTruck	Truck, Plow	This document
TugBoat	Tug Boat (General)	This document
VictimAdvocate	Victim Advocate Unit	This document
DeWateringWaterPump	Water Pumps, De-Watering	This document
WasteWaterPump	Water Pumps, Wastewater	This document
FireWaterTender	Water Tender, Firefighting (Tanker)	This document
WaterTruck	Truck, Water	This document
WheelDozer	Wheel Dozer	This document
WheelLoaderBackhoe	Wheel Loader Backhoe	This document
WheelLoader	Wheel Loaders	This document
WheelLoaderSkidSteer	Wheel Loaders, Skid Steer	This document
WoodChipper	Wood Chipper	This document
WildlandTaskForce	Wild Land Task Force	This document
StrikeTeam	Strike Team	This document
HotShotTeam	Hot Shot Team	This document

### 3.12 Resource Attribute

The “Resource Attribute” data element is described in Section 2.20 (Emergency Resource Data Component) of this document.

IANA is requested to add the following values to the “EIDO-ResourceAttribute” registry.

**Table 3-12 Resource Attribute Registry**

<b>Value</b>	<b>Literal Description</b>	<b>Reference</b>
AdvancedEMT	Advanced Emergency Medical Technician	This document
AdvancedPRN	Advanced Practice Registered Nurse (Nurse Practitioner)	This document
ReconAircraft	Aircraft, Reconnaissance, manhunts and surveillance, surveys	This document
SearchandRescueAircraft	Aircraft, Search and Rescue	This document
PursuitAircraft	Aircraft, Pursuit	This document
AerialPhotographyAircraft	Aircraft, Aerial Photography	This document
TransportAircraft	Aircraft, Transport	This document
AirBags	Air Bags (special equipment)	This document
AirMedicalTransportParamedic	Air Medical Transport Paramedic	This document
AirMedicalTransportPhysician	Air Medical Transport Physician	This document
AirMedicalTransportPilot	Air Medical Transport Pilot	This document
AirMedicalTransportNurse	Air Medical Transport Registered Nurse	This document
AirportFirefighter	Airport Firefighter	This document
AmbulanceStrikeTeamLeader	Ambulance Strike Team / Ambulance Task Force Leader	This document

Value	Literal Description	Reference
AnimalCaseManager	Animal Case Manager	This document
AnimalControlSpecialist	Animal Control Specialist	This document
AnimalDiseaseEpidemiologist	Animal Disease Epidemiologist	This document
AnimalHandlingSpecialist	Animal Handling Specialist	This document
AnimalTechnician	Animal Technician	This document
Bicycle	Bicycle	This document
CarbonMonoxideDetector	Carbon Monoxide Detector	This document
CivilFieldEngineer	Civil/Field Engineer	This document
CrisisInterventionSpecialist	Crisis Intervention Specialist	This document
ConfinedSpaceRescueEquipBasic	Confined Space Rescue Equipment - Basic	This document
ConfinedSpaceRescueEquipAdvanced	Confined Space Rescue Equipment - Advanced	This document
ConcreteCutter	Concrete Cutter	This document
DiveTeam	Certified Dive Team Member	This document
DrugRecognitionExpert	Drug Recognition Expert	This document
DrugK9	Drug Canine	This document
ElectronicArrowBoard	Electronic Arrow Board	This document
ElectronicVariableMessageBoard	Electronic Variable Message Board	This document
EmergencyVehicleOperator	Emergency Vehicle Operator	This document
EmergencyVehicleOperatorHeavy	Emergency Vehicle Operator - Heavy	This document



Value	Literal Description	Reference
EMSPhysician	EMS Physician	This document
EMT	Emergency Medical Technician	This document
ExplosiveK9	Explosive Canine	This document
ExtricationEquipmentBasic	Extrication Equipment - Basic	This document
ExtricationEquipmentAdvanced	Extrication Equipment - Advanced	This document
FireApparatusDriver_Operator	Fire Apparatus Driver/Operator	This document
FireInspector	Fire Inspector	This document
Firefighter	Firefighter	This document
FLIR	FLIR Thermal Imaging	This document
Floodlights	Floodlights	This document
JawsOfLife	Hurst Tool (Jaws of Life)	This document
Generators	Generators	This document
HazMatOfficer	HazMat Officer	This document
HelicopterSearchandRescuePilot	Rotary Pilot	This document
HelicopterSearchandRescueTech	Fixed Wing Pilot	This document
HighAngleRescueEquipment	High Angle Rescue specialist	This document
HostageNegotiator	Hostage Negotiator	This document
IceRescueEquipment	Ice Rescue Equipment	This document
AbkhazianInterpreter	Language Interpreter -- Abkhazian (abk)	This document
AchineseInterpreter	Language Interpreter -- Achinese (ace)	This document

Value	Literal Description	Reference
AcoliInterpreter	Language Interpreter -- Acoli (ach)	This document
AdangmeInterpreter	Language Interpreter -- Adangme (ada)	This document
AdygheAdygeiInterpreter	Language Interpreter -- Adyghe Adygei (ady)	This document
AfarInterpreter	Language Interpreter -- Afar (aar)	This document
AfrihiliInterpreter	Language Interpreter -- Afrihili (afh)	This document
AfrikaansInterpreter	Language Interpreter -- Afrikaans (afr)	This document
Afro-AsiaticLanguagesInterpreter	Language Interpreter -- Afro-Asiatic Languages (afa)	This document
AinuInterpreter	Language Interpreter -- Ainu (ain)	This document
AkanInterpreter	Language Interpreter -- Akan (aka)	This document
AkkadianInterpreter	Language Interpreter -- Akkadian (akk)	This document
AlbanianInterpreter	Language Interpreter -- Albanian (alb (B))	This document



Value	Literal Description	Reference
AleutInterpreter	Language Interpreter -- Aleut (ale)	This document
AlgonquianLanguagesInterpreter	Language Interpreter -- Algonquian Languages (alg)	This document
AltaicLanguagesInterpreter	Language Interpreter -- Altaic Languages (tut)	This document
AmharicInterpreter	Language Interpreter -- Amharic (amh)	This document
AngikaInterpreter	Language Interpreter -- Angika (anp)	This document
ApachelanguagesInterpreter	Language Interpreter -- Apache languages (apa)	This document
ArabicInterpreter	Language Interpreter -- Arabic (ara)	This document
AragoneseInterpreter	Language Interpreter -- Aragonese (arg)	This document
AramaicInterpreter	Language Interpreter -- Aramaic (arc)	This document
ArapahoInterpreter	Language Interpreter -- Arapaho (arp)	This document
ArawakInterpreter	Language Interpreter -- Arawak (arw)	This document

Value	Literal Description	Reference
ArmenianInterpreter	Language Interpreter -- Armenian (arm (B))	This document
AromanianArumanianMacedo-RomanianInterpreter	Language Interpreter -- Aromanian Arumanian Macedo-Romanian (rup)	This document
AssameseInterpreter	Language Interpreter -- Assamese (asm)	This document
AsturianBableLeoneseAsturleoneseInterpreter	Language Interpreter -- Asturian Bable Leonese Asturleonese (ast)	This document
AthapaskanLanguagesInterpreter	Language Interpreter -- Athapaskan Languages (ath)	This document
AustronesianLanguagesInterpreter	Language Interpreter -- Austronesian Languages (map)	This document
AvaricInterpreter	Language Interpreter -- Avaric (ava)	This document
AvestanInterpreter	Language Interpreter -- Avestan (ave)	This document
AwadhiInterpreter	Language Interpreter -- Awadhi (awa)	This document

Value	Literal Description	Reference
AymaraInterpreter	Language Interpreter -- Aymara (aym)	This document
AzerbaijaniInterpreter	Language Interpreter -- Azerbaijani (aze)	This document
BalineseInterpreter	Language Interpreter -- Balinese (ban)	This document
BalticLanguagesInterpreter	Language Interpreter -- Baltic Languages (bat)	This document
BaluchiInterpreter	Language Interpreter -- Baluchi (bal)	This document
BambaraInterpreter	Language Interpreter -- Bambara (bam)	This document
BamilekeLanguagesInterpreter	Language Interpreter -- Bamileke Languages (bai)	This document
BandaLanguagesInterpreter	Language Interpreter -- Banda Languages (bad)	This document
BantuLanguagesInterpreter	Language Interpreter -- Bantu Languages (bnt)	This document
BasaInterpreter	Language Interpreter -- Basa (bas)	This document
BashkirInterpreter	Language Interpreter -- Bashkir (bak)	This document

Value	Literal Description	Reference
BasqueInterpreter	Language Interpreter -- Basque (baq (B))	This document
BatakLanguagesInterpreter	Language Interpreter -- Batak Languages (btk)	This document
BejaBedawiyetInterpreter	Language Interpreter -- Beja Bedawiyet (bej)	This document
BelarusianInterpreter	Language Interpreter -- Belarusian (bel)	This document
BembaInterpreter	Language Interpreter -- Bemba (bem)	This document
BengaliInterpreter	Language Interpreter -- Bengali (ben)	This document
BerberLanguagesInterpreter	Language Interpreter -- Berber Languages (ber)	This document
BhojpuriInterpreter	Language Interpreter -- Bhojpuri (bho)	This document
BihariLanguagesInterpreter	Language Interpreter -- Bihari Languages (bih)	This document
BikolInterpreter	Language Interpreter -- Bikol (bik)	This document
BiniEdoInterpreter	Language Interpreter -- Bini Edo (bin)	This document

Value	Literal Description	Reference
BislamaInterpreter	Language Interpreter -- Bislama (bis)	This document
BlinBilinInterpreter	Language Interpreter -- Blin Bilin (byn)	This document
BlissymbolsBlissymbolicsBlissInterpreter	Language Interpreter -- Blissymbols Blissymbolics Bliss (zbl)	This document
BosnianInterpreter	Language Interpreter -- Bosnian (bos)	This document
BrajInterpreter	Language Interpreter -- Braj (bra)	This document
BretonInterpreter	Language Interpreter -- Breton (bre)	This document
BugineseInterpreter	Language Interpreter -- Buginese (bug)	This document
BulgarianInterpreter	Language Interpreter -- Bulgarian (bul)	This document
BuriatInterpreter	Language Interpreter -- Buriat (bua)	This document
BurmeseInterpreter	Language Interpreter -- Burmese (bur (B))	This document
CaddoInterpreter	Language Interpreter -- Caddo (cad)	This document

Value	Literal Description	Reference
CatalanValencianInterpreter	Language Interpreter -- Catalan Valencian (cat)	This document
CaucasianLanguagesInterpreter	Language Interpreter -- Caucasian languages (cau)	This document
CebuanoInterpreter	Language Interpreter -- Cebuano (ceb)	This document
CelticLanguagesInterpreter	Language Interpreter -- Celtic Languages (cel)	This document
CentralAmericanIndianLanguagesInterpreter	Language Interpreter -- Central American Indian Languages (cai)	This document
CentralKhmerInterpreter	Language Interpreter -- Central Khmer (khm)	This document
ChagataiInterpreter	Language Interpreter -- Chagatai (chg)	This document
ChamicLanguagesInterpreter	Language Interpreter -- Chamic Languages (cmc)	This document
ChamorroInterpreter	Language Interpreter -- Chamorro (cha)	This document
ChechenInterpreter	Language Interpreter -- Chechen (che)	This document



Value	Literal Description	Reference
CherokeeInterpreter	Language Interpreter -- Cherokee (chr)	This document
CheyenneInterpreter	Language Interpreter -- Cheyenne (chy)	This document
ChibchaInterpreter	Language Interpreter -- Chibcha (chb)	This document
ChichewaChewaNyanjaInterpreter	Language Interpreter -- Chichewa Chewa Nyanja (nya)	This document
ChineseInterpreter	Language Interpreter -- Chinese (chi (B))	This document
ChinookJargonInterpreter	Language Interpreter -- Chinook Jargon (chn)	This document
ChipewyanDeneSulineInterpreter	Language Interpreter -- Chipewyan Dene Suline (chp)	This document
ChoctawInterpreter	Language Interpreter -- Choctaw (cho)	This document
ChuukeseInterpreter	Language Interpreter -- Chuukese (chk)	This document
ChuvashInterpreter	Language Interpreter -- Chuvash (chv)	This document
ClassicalNewariOldNewariClassicalNepalBhasaInterpreter	Language Interpreter -- Classical Newari	This document

Value	Literal Description	Reference
	Old Newari Classical Nepal Bhasa (nwc)	
ClassicalSyriacInterpreter	Language Interpreter -- Classical Syriac (syc)	This document
CopticInterpreter	Language Interpreter -- Coptic (cop)	This document
CornishInterpreter	Language Interpreter -- Cornish (cor)	This document
CorsicanInterpreter	Language Interpreter -- Corsican (cos)	This document
CreeInterpreter	Language Interpreter -- Cree (cre)	This document
CreekInterpreter	Language Interpreter -- Creek (mus)	This document
CreolesPidginsEnglishBasedInterpreter	Language Interpreter -- Creoles Pidgins English Based (cpe)	This document
CreolesPidginsFrenchBasedInterpreter	Language Interpreter -- Creoles Pidgins French Based (cpf)	This document
CreolesPidginsInterpreter	Language Interpreter -- Creoles Pidgins (crp)	This document
CreolesPidginsPortugueseBasedInterpreter	Language Interpreter --	This document



Value	Literal Description	Reference
	Creoles Pidgins Portuguese Based (cpp)	
CrimeanTatarCrimeanTurkishInterpreter	Language Interpreter -- Crimean Tatar Crimean Turkish (crh)	This document
CroatianInterpreter	Language Interpreter -- Croatian (hrv)	This document
CushiticLanguagesInterpreter	Language Interpreter -- Cushitic Languages (cus)	This document
CzechInterpreter	Language Interpreter -- Czech (cze (B))	This document
DakotaInterpreter	Language Interpreter -- Dakota (dak)	This document
DanishInterpreter	Language Interpreter -- Danish (dan)	This document
DargwaInterpreter	Language Interpreter -- Dargwa (dar)	This document
DelawareInterpreter	Language Interpreter -- Delaware (del)	This document
DinkaInterpreter	Language Interpreter -- Dinka (din)	This document
DivehiDhivehiMaldivianInterpreter	Language Interpreter --	This document

Value	Literal Description	Reference
	Divehi Dhivehi Maldivian (div)	
DogribInterpreter	Language Interpreter -- Dogrib (dgr)	This document
DogriInterpreter	Language Interpreter -- Dogri (doi)	This document
DravidianLanguagesInterpreter	Language Interpreter -- Dravidian Languages (dra)	This document
DualaInterpreter	Language Interpreter -- Duala (dua)	This document
DutchFlemishInterpreter	Language Interpreter -- Dutch Flemish (dut (B))	This document
DyulaInterpreter	Language Interpreter -- Dyula (dyu)	This document
DzongkhaInterpreter	Language Interpreter -- Dzongkha (dzo)	This document
EasternFrisianInterpreter	Language Interpreter -- Eastern Frisian (frs)	This document
EfikInterpreter	Language Interpreter -- Efik (efi)	This document
EkajukInterpreter	Language Interpreter -- Ekajuk (eka)	This document

Value	Literal Description	Reference
ElamiteInterpreter	Language Interpreter -- Elamite (elx)	This document
EnglishInterpreter	Language Interpreter -- English (eng)	This document
ErzyaInterpreter	Language Interpreter -- Erzya (myv)	This document
EsperantoInterpreter	Language Interpreter -- Esperanto (epo)	This document
EstonianInterpreter	Language Interpreter -- Estonian (est)	This document
EweInterpreter	Language Interpreter -- Ewe (ewe)	This document
EwondoInterpreter	Language Interpreter -- Ewondo (ewo)	This document
FangInterpreter	Language Interpreter -- Fang (fan)	This document
FantiInterpreter	Language Interpreter -- Fanti (fat)	This document
FaroeseInterpreter	Language Interpreter -- Faroese (fao)	This document
FijianInterpreter	Language Interpreter -- Fijian (fij)	This document
FilipinoPilipinoInterpreter	Language Interpreter -- Filipino Pilipino (fil)	This document

Value	Literal Description	Reference
FinnishInterpreter	Language Interpreter -- Finnish (fin)	This document
FinnoUgrianLanguagesInterpreter	Language Interpreter -- Finno Ugrian Languages (fiu)	This document
FonInterpreter	Language Interpreter -- Fon (fon)	This document
FrenchInterpreter	Language Interpreter -- French (fre (B))	This document
FriulianInterpreter	Language Interpreter -- Friulian (fur)	This document
FulahInterpreter	Language Interpreter -- Fulah (ful)	This document
GaelicScottishGaelicInterpreter	Language Interpreter -- Gaelic Scottish Gaelic (gla)	This document
GaInterpreter	Language Interpreter -- Ga (gaa)	This document
GalibiCaribInterpreter	Language Interpreter -- Galibi Carib (car)	This document
GalicianInterpreter	Language Interpreter -- Galician (glg)	This document
GandaInterpreter	Language Interpreter -- Ganda (lug)	This document

Value	Literal Description	Reference
GayoInterpreter	Language Interpreter -- Gayo (gay)	This document
GbayaInterpreter	Language Interpreter -- Gbaya (gba)	This document
GeezInterpreter	Language Interpreter -- Geez (gez)	This document
GeorgianInterpreter	Language Interpreter -- Georgian (geo (B))	This document
GermanInterpreter	Language Interpreter -- German (ger (B))	This document
GilberteseInterpreter	Language Interpreter -- Gilbertese (gil)	This document
GondiInterpreter	Language Interpreter -- Gondi (gon)	This document
GorontaloInterpreter	Language Interpreter -- Gorontalo (gor)	This document
GothicInterpreter	Language Interpreter -- Gothic (got)	This document
GreboInterpreter	Language Interpreter -- Grebo (grb)	This document
GreekModernInterpreter	Language Interpreter -- Greek Modern (gre (B))	This document

Value	Literal Description	Reference
GuaraniInterpreter	Language Interpreter -- Guarani (grn)	This document
GujaratiInterpreter	Language Interpreter -- Gujarati (guj)	This document
GwichinInterpreter	Language Interpreter -- Gwich'in (gwi)	This document
HaidaInterpreter	Language Interpreter -- Haida (hai)	This document
HaitianHaitianCreoleInterpreter	Language Interpreter -- Haitian Haitian Creole (hat)	This document
HausaInterpreter	Language Interpreter -- Hausa (hau)	This document
HawaiianInterpreter	Language Interpreter -- Hawaiian (haw)	This document
HebrewInterpreter	Language Interpreter -- Hebrew (heb)	This document
HereroInterpreter	Language Interpreter -- Herero (her)	This document
HiligaynonInterpreter	Language Interpreter -- Hiligaynon (hil)	This document
HimachaliWesternPahariLanguagesInterpreter	Language Interpreter -- Himachali Western Pahari Languages (him)	This document

Value	Literal Description	Reference
HindiInterpreter	Language Interpreter -- Hindi (hin)	This document
HiriMotuInterpreter	Language Interpreter -- Hiri Motu (hmo)	This document
HittiteInterpreter	Language Interpreter -- Hittite (hit)	This document
HmongMongInterpreter	Language Interpreter -- Hmong Mong (hmn)	This document
HungarianInterpreter	Language Interpreter -- Hungarian (hun)	This document
HupaInterpreter	Language Interpreter -- Hupa (hup)	This document
IbanInterpreter	Language Interpreter -- Iban (iba)	This document
IcelandicInterpreter	Language Interpreter -- Icelandic (ice (B))	This document
IdoInterpreter	Language Interpreter -- Ido (ido)	This document
IgboInterpreter	Language Interpreter -- Igbo (ibo)	This document
IjolanguesInterpreter	Language Interpreter -- Ijolangues (ijo)	This document

Value	Literal Description	Reference
IlokoInterpreter	Language Interpreter -- Iloko (ilo)	This document
InariSamiInterpreter	Language Interpreter -- Inari Sami (smn)	This document
IndicLanguagesInterpreter	Language Interpreter -- Indic Languages (inc)	This document
Indo-EuropeanLanguagesInterpreter	Language Interpreter -- Indo-European Languages (ine)	This document
IndonesianInterpreter	Language Interpreter -- Indonesian (ind)	This document
IngushInterpreter	Language Interpreter -- Ingush (inh)	This document
InterlingueOccidentalInterpreter	Language Interpreter -- Interlingue Occidental (ile)	This document
InuktitutInterpreter	Language Interpreter -- Inuktitut (iku)	This document
InupiaqInterpreter	Language Interpreter -- Inupiaq (ipk)	This document
IranianLanguagesInterpreter	Language Interpreter -- Iranian Languages (ira)	This document
IrishInterpreter	Language Interpreter -- Irish (gle)	This document



Value	Literal Description	Reference
IroquoianLanguagesInterpreter	Language Interpreter -- Iroquoian Languages (iro)	This document
ItalianInterpreter	Language Interpreter -- Italian (ita)	This document
JapaneseInterpreter	Language Interpreter -- Japanese (jpn)	This document
JavaneseInterpreter	Language Interpreter -- Javanese (jav)	This document
Judeo-ArabicInterpreter	Language Interpreter -- Judeo-Arabic (jrb)	This document
Judeo-PersianInterpreter	Language Interpreter -- Judeo-Persian (jpr)	This document
KabardianInterpreter	Language Interpreter -- Kabardian (kbd)	This document
KabyleInterpreter	Language Interpreter -- Kabyle (kab)	This document
KachinJingphoInterpreter	Language Interpreter -- Kachin Jingpho (kac)	This document
KalaallisutGreenlandicInterpreter	Language Interpreter -- Kalaallisut Greenlandic (kal)	This document
KalmykOiratInterpreter	Language Interpreter -- Kalmyk Oirat (xal)	This document

Value	Literal Description	Reference
KambaInterpreter	Language Interpreter -- Kamba (kam)	This document
KannadaInterpreter	Language Interpreter -- Kannada (kan)	This document
KanuriInterpreter	Language Interpreter -- Kanuri (kau)	This document
Karachay-BalkarInterpreter	Language Interpreter -- Karachay-Balkar (krc)	This document
Kara-KalpakInterpreter	Language Interpreter -- Kara-Kalpak (kaa)	This document
KarelianInterpreter	Language Interpreter -- Karelian (krl)	This document
KarenLanguagesInterpreter	Language Interpreter -- Karen Languages (kar)	This document
KashmiriInterpreter	Language Interpreter -- Kashmiri (kas)	This document
KashubianInterpreter	Language Interpreter -- Kashubian (csb)	This document
KawiInterpreter	Language Interpreter -- Kawi (kaw)	This document
KazakhInterpreter	Language Interpreter -- Kazakh (kaz)	This document

Value	Literal Description	Reference
KhasiInterpreter	Language Interpreter -- Khasi (kha)	This document
KhoisanLanguagesInterpreter	Language Interpreter -- Khoisan Languages (khi)	This document
KhotaneseSakanInterpreter	Language Interpreter -- Khotanese Sakan (kho)	This document
KikuyuGikuyuInterpreter	Language Interpreter -- Kikuyu Gikuyu (kik)	This document
KimbunduInterpreter	Language Interpreter -- Kimbundu (kmb)	This document
KinyarwandaInterpreter	Language Interpreter -- Kinyarwanda (kin)	This document
KirghizKyrgyzInterpreter	Language Interpreter -- Kirghiz Kyrgyz (kir)	This document
KlingonTlhIngan-HolInterpreter	Language Interpreter -- KlingonTlhIngan-Hol (tlh)	This document
KomiInterpreter	Language Interpreter -- Komi (kom)	This document
KongoInterpreter	Language Interpreter -- Kongo (kon)	This document
KonkaniInterpreter	Language Interpreter -- Konkani (kok)	This document

Value	Literal Description	Reference
KoreanInterpreter	Language Interpreter -- Korean (kor)	This document
KosraeanInterpreter	Language Interpreter -- Kosraean (kos)	This document
KpelleInterpreter	Language Interpreter -- Kpelle (kpe)	This document
KruLanguagesInterpreter	Language Interpreter -- Kru Languages (kro)	This document
KuanyamaKwanyamaInterpreter	Language Interpreter -- Kuanyama Kwanyama (kua)	This document
KumykInterpreter	Language Interpreter -- Kumyk (kum)	This document
KurdishInterpreter	Language Interpreter -- Kurdish (kur)	This document
KurukhInterpreter	Language Interpreter -- Kurukh (kru)	This document
KutenaiInterpreter	Language Interpreter -- Kutenai (kut)	This document
LadinoInterpreter	Language Interpreter -- Ladino (lad)	This document
LahndaInterpreter	Language Interpreter -- Lahnda (lah)	This document

Value	Literal Description	Reference
LambaInterpreter	Language Interpreter -- Lamba (lam)	This document
LandDayakLanguagesInterpreter	Language Interpreter -- Land Dayak Languages (day)	This document
LaoInterpreter	Language Interpreter -- Lao (lao)	This document
LatinInterpreter	Language Interpreter -- Latin (lat)	This document
LatvianInterpreter	Language Interpreter -- Latvian (lav)	This document
LezghianInterpreter	Language Interpreter -- Lezghian (lez)	This document
LimburganLimburgerLimburgishInterpreter	Language Interpreter -- Limburgan Limburger Limburgish (lim)	This document
LingalaInterpreter	Language Interpreter -- Lingala (lin)	This document
LithuanianInterpreter	Language Interpreter -- Lithuanian (lit)	This document
LojbanInterpreter	Language Interpreter -- Lojban (jbo)	This document
LowerSorbianInterpreter	Language Interpreter --	This document

Value	Literal Description	Reference
	Lower Sorbian (dsb)	
LoziInterpreter	Language Interpreter -- Lozi (loz)	This document
Luba-KatangaInterpreter	Language Interpreter -- Luba-Katanga (lub)	This document
Luba-LuluaInterpreter	Language Interpreter -- Luba-Lulua (lua)	This document
LuisenoInterpreter	Language Interpreter -- Luiseno (lui)	This document
LuleSamiInterpreter	Language Interpreter -- Lule Sami (smj)	This document
LundaInterpreter	Language Interpreter -- Lunda (lun)	This document
Luo-KenyaTanzania-Interpreter	Language Interpreter -- Luo(KenyaTanzania) (luo)	This document
LushaiInterpreter	Language Interpreter -- Lushai (lus)	This document
LuxembourgishLetzeburgeschInterpreter	Language Interpreter -- Luxembourgish Letzeburgesch (ltz)	This document
MacedonianInterpreter	Language Interpreter -- Macedonian (mac (B))	This document

Value	Literal Description	Reference
MadureseInterpreter	Language Interpreter -- Madurese (mad)	This document
MagahiInterpreter	Language Interpreter -- Magahi (mag)	This document
MaithiliInterpreter	Language Interpreter -- Maithili (mai)	This document
MakasarInterpreter	Language Interpreter -- Makasar (mak)	This document
MalagasyInterpreter	Language Interpreter -- Malagasy (mlg)	This document
MalayalamInterpreter	Language Interpreter -- Malayalam (mal)	This document
MalayInterpreter	Language Interpreter -- Malay (may (B))	This document
MalteseInterpreter	Language Interpreter -- Maltese (mlt)	This document
ManchuInterpreter	Language Interpreter -- Manchu (mnc)	This document
MandarInterpreter	Language Interpreter -- Mandar (mdr)	This document
MandingoInterpreter	Language Interpreter -- Mandingo (man)	This document
ManipuriInterpreter	Language Interpreter -- Manipuri (mni)	This document

Value	Literal Description	Reference
ManoboLanguagesInterpreter	Language Interpreter -- Manobo Languages (mno)	This document
ManxInterpreter	Language Interpreter -- Manx (glv)	This document
MaoriInterpreter	Language Interpreter -- Maori (mao (B))	This document
MapudungunMapucheInterpreter	Language Interpreter -- Mapudungun Mapuche (arn)	This document
MarathiInterpreter	Language Interpreter -- Marathi (mar)	This document
MariInterpreter	Language Interpreter -- Mari (chm)	This document
MarshalleseInterpreter	Language Interpreter -- Marshallese (mah)	This document
MarwariInterpreter	Language Interpreter -- Marwari (mwr)	This document
MasaiInterpreter	Language Interpreter -- Masai (mas)	This document
MayanLanguagesInterpreter	Language Interpreter -- Mayan Languages (myn)	This document
MendeInterpreter	Language Interpreter -- Mende (men)	This document



Value	Literal Description	Reference
MikmaqMicmacInterpreter	Language Interpreter -- Mi'kmaq Micmac (mic)	This document
MinangkabauInterpreter	Language Interpreter -- Minangkabau (min)	This document
MirandeseInterpreter	Language Interpreter -- Mirandese (mwl)	This document
MohawkInterpreter	Language Interpreter -- Mohawk (moh)	This document
MokshaInterpreter	Language Interpreter -- Moksha (mdf)	This document
MongoInterpreter	Language Interpreter -- Mongo (lol)	This document
MongolianInterpreter	Language Interpreter -- Mongolian (mon)	This document
Mon-KhmerLanguagesInterpreter	Language Interpreter -- Mon-Khmer Languages (mkh)	This document
MossiInterpreter	Language Interpreter -- Mossi (mos)	This document
MundaLanguagesInterpreter	Language Interpreter -- Munda Languages (mun)	This document
NahuatlLanguagesInterpreter	Language Interpreter --	This document

Value	Literal Description	Reference
	Nahuatl Languages (nah)	
NauruInterpreter	Language Interpreter -- Nauru (nau)	This document
NavajoNavahoInterpreter	Language Interpreter -- Navajo Navaho (nav)	This document
NdebeleNorthNdebeleInterpreter	Language Interpreter -- Ndebele North Ndebele (nde)	This document
NdebeleSouthNdebeleInterpreter	Language Interpreter -- Ndebele South Ndebele (nbl)	This document
NdongaInterpreter	Language Interpreter -- Ndonga (ndo)	This document
NeapolitanInterpreter	Language Interpreter -- Neapolitan (nap)	This document
NepalBhasaNewariInterpreter	Language Interpreter -- Nepal Bhasa Newari (new)	This document
NepaliInterpreter	Language Interpreter -- Nepali (nep)	This document
NiasInterpreter	Language Interpreter -- Nias (nia)	This document
Niger-KordofanianLanguagesInterpreter	Language Interpreter --	This document

Value	Literal Description	Reference
	Niger-Kordofanian Languages (nic)	
Nilo-SaharanLanguagesInterpreter	Language Interpreter -- Nilo-Saharan Languages (ssa)	This document
NiueanInterpreter	Language Interpreter -- Niuean (niu)	This document
NKoInterpreter	Language Interpreter -- N'Ko (nqo)	This document
NogaiInterpreter	Language Interpreter -- Nogai (nog)	This document
NorseOldInterpreter	Language Interpreter -- Norse Old (non)	This document
NorthernFrisianInterpreter	Language Interpreter -- Northern Frisian (frr)	This document
NorthernSamiInterpreter	Language Interpreter -- Northern Sami (sme)	This document
NorwegianBokmalInterpreter	Language Interpreter -- Norwegian Bokm?l (nob)	This document
NorwegianInterpreter	Language Interpreter -- Norwegian (nno)	This document
NubianLanguagesInterpreter	Language Interpreter --	This document

Value	Literal Description	Reference
	Nubian Languages (nub)	
NyamweziInterpreter	Language Interpreter -- Nyamwezi (nym)	This document
NyankoleInterpreter	Language Interpreter -- Nyankole (nyn)	This document
NyoroInterpreter	Language Interpreter -- Nyoro (nyo)	This document
NzimaInterpreter	Language Interpreter -- Nzima (nzi)	This document
OccitanInterpreter	Language Interpreter -- Occitan (oci)	This document
OjibwaInterpreter	Language Interpreter -- Ojibwa (oji)	This document
OriyaInterpreter	Language Interpreter -- Oriya (ori)	This document
OromoInterpreter	Language Interpreter -- Oromo (orm)	This document
OsageInterpreter	Language Interpreter -- Osage (osa)	This document
OssetianOsseticInterpreter	Language Interpreter -- Ossetian Ossetic (oss)	This document
OtomianLanguagesInterpreter	Language Interpreter --	This document

Value	Literal Description	Reference
	Otomian Languages (oto)	
PahlaviInterpreter	Language Interpreter -- Pahlavi (pal)	This document
PalauanInterpreter	Language Interpreter -- Palauan (pau)	This document
PaliInterpreter	Language Interpreter -- Pali (pli)	This document
PampangaKapampanganInterpreter	Language Interpreter -- Pampanga Kapampangan (pam)	This document
PangasinanInterpreter	Language Interpreter -- Pangasinan (pag)	This document
PanjabiPunjabiInterpreter	Language Interpreter -- Panjabi Punjabi (pan)	This document
PapiamentoInterpreter	Language Interpreter -- Papiamento (pap)	This document
PapuanLanguagesInterpreter	Language Interpreter -- Papuan Languages (paa)	This document
PediSepediNorthernSothoInterpreter	Language Interpreter -- Pedi Sepedi Northern Sotho (nso)	This document

Value	Literal Description	Reference
PersianInterpreter	Language Interpreter -- Persian (per (B))	This document
PhilippineLanguagesInterpreter	Language Interpreter -- Philippine Languages (phi)	This document
PhoenicianInterpreter	Language Interpreter -- Phoenician (phn)	This document
PohnpeianInterpreter	Language Interpreter -- Pohnpeian (pon)	This document
PolishInterpreter	Language Interpreter -- Polish (pol)	This document
PortugueseInterpreter	Language Interpreter -- Portuguese (por)	This document
PrakritLanguagesInterpreter	Language Interpreter -- Prakrit Languages (pra)	This document
PushtoPashtoInterpreter	Language Interpreter -- Pushto Pashto (pus)	This document
QuechuaInterpreter	Language Interpreter -- Quechua (que)	This document
RajasthaniInterpreter	Language Interpreter -- Rajasthani (raj)	This document
RapanuiInterpreter	Language Interpreter -- Rapanui (rap)	This document



Value	Literal Description	Reference
RarotonganCookIslandsMaoriInterpreter	Language Interpreter -- Rarotongan Cook Islands Maori (rar)	This document
RomanianMoldavianMoldovanInterpreter	Language Interpreter -- Romanian Moldavian Moldovan (rum (B))	This document
RomanshInterpreter	Language Interpreter -- Romansh (roh)	This document
RomanyInterpreter	Language Interpreter -- Romany (rom)	This document
RundiInterpreter	Language Interpreter -- Rundi (run)	This document
RussianInterpreter	Language Interpreter -- Russian (rus)	This document
SalishanLanguagesInterpreter	Language Interpreter -- Salishan Languages (sal)	This document
SamaritanAramaicInterpreter	Language Interpreter -- Samaritan Aramaic (sam)	This document
SamiLanguagesInterpreter	Language Interpreter -- Sami Languages (smi)	This document
SamoanInterpreter	Language Interpreter -- Samoan (smo)	This document

Value	Literal Description	Reference
SandaweInterpreter	Language Interpreter -- Sandawe (sad)	This document
SangoInterpreter	Language Interpreter -- Sango (sag)	This document
SanskritInterpreter	Language Interpreter -- Sanskrit (san)	This document
SantaliInterpreter	Language Interpreter -- Santali (sat)	This document
SardinianInterpreter	Language Interpreter -- Sardinian (srd)	This document
SasakInterpreter	Language Interpreter -- Sasak (sas)	This document
ScotsInterpreter	Language Interpreter -- Scots (sco)	This document
SelkupInterpreter	Language Interpreter -- Selkup (sel)	This document
SemiticLanguagesInterpreter	Language Interpreter -- Semitic Languages (sem)	This document
SerbianInterpreter	Language Interpreter -- Serbian (srp)	This document
SererInterpreter	Language Interpreter -- Serer (srr)	This document



Value	Literal Description	Reference
ShanInterpreter	Language Interpreter -- Shan (shn)	This document
ShonaInterpreter	Language Interpreter -- Shona (sna)	This document
SichuanYiNuosuInterpreter	Language Interpreter -- Sichuan YiNuosu (iii)	This document
SicilianInterpreter	Language Interpreter -- Sicilian (scn)	This document
SidamoInterpreter	Language Interpreter -- Sidamo (sid)	This document
SignLanguagesInterpreter	Language Interpreter -- Sign Languages (sgn)	This document
SiksikaInterpreter	Language Interpreter -- Siksika (bla)	This document
SindhiInterpreter	Language Interpreter -- Sindhi (snd)	This document
SinhalaSinhaleseInterpreter	Language Interpreter -- Sinhala Sinhalese (sin)	This document
Sino-TibetanLanguagesInterpreter	Language Interpreter -- Sino-Tibetan Languages (sit)	This document
SiouanLanguagesInterpreter	Language Interpreter --	This document

Value	Literal Description	Reference
	Siouan Languages (sio)	
SkoltSamiInterpreter	Language Interpreter -- Skolt Sami (sms)	This document
Slave(Athapascan)Interpreter	Language Interpreter -- Slave - Athapascan (den)	This document
SlavicLanguagesInterpreter	Language Interpreter -- Slavic Languages (sla)	This document
SlavicSlavonicOldBulgarianInterpreter	Language Interpreter -- Slavic Slavonic Old Bulgarian (chu)	This document
SlovakInterpreter	Language Interpreter -- Slovak (slo (B))	This document
SlovenianInterpreter	Language Interpreter -- Slovenian (slv)	This document
SogdianInterpreter	Language Interpreter -- Sogdian (sog)	This document
SomaliInterpreter	Language Interpreter -- Somali (som)	This document
SonghaiLanguagesInterpreter	Language Interpreter -- Songhai Languages (son)	This document
SoninkeInterpreter	Language Interpreter -- Soninke (snk)	This document
SorbianLanguagesInterpreter	Language Interpreter --	This document

Value	Literal Description	Reference
	Sorbian Languages (wen)	
SothoSouthernInterpreter	Language Interpreter -- Sotho Southern (sot)	This document
SouthAmericanIndianLanguagesInterpreter	Language Interpreter -- South American Indian Languages (sai)	This document
SouthernAltaiInterpreter	Language Interpreter -- Southern Altai (alt)	This document
SouthernSamiInterpreter	Language Interpreter -- Southern Sami (sma)	This document
SpanishCastilianInterpreter	Language Interpreter -- Spanish Castilian (spa)	This document
SrananTongoInterpreter	Language Interpreter -- Sranan Tongo (srn)	This document
StandardMoroccanTamazightInterpreter	Language Interpreter -- Standard Moroccan Tamazight (zgh)	This document
SukumaInterpreter	Language Interpreter -- Sukuma (suk)	This document
SumerianInterpreter	Language Interpreter -- Sumerian (sux)	This document

Value	Literal Description	Reference
SundaneseInterpreter	Language Interpreter -- Sundanese (sun)	This document
SusuInterpreter	Language Interpreter -- Susu (sus)	This document
SwahiliInterpreter	Language Interpreter -- Swahili (swa)	This document
SwatiInterpreter	Language Interpreter -- Swati (ssw)	This document
SwedishInterpreter	Language Interpreter -- Swedish (swe)	This document
SwissGermanAlemannicAlsatianInterpreter	Language Interpreter -- Swiss German Alemannic Alsatian (gsw)	This document
SyriacInterpreter	Language Interpreter -- Syriac (syr)	This document
TagalogInterpreter	Language Interpreter -- Tagalog (tgl)	This document
TahitianInterpreter	Language Interpreter -- Tahitian (tah)	This document
TaiLanguagesInterpreter	Language Interpreter -- Tai Languages (tai)	This document
TajikInterpreter	Language Interpreter -- Tajik (tgk)	This document

Value	Literal Description	Reference
TamashekInterpreter	Language Interpreter -- Tamashek (tmh)	This document
TamilInterpreter	Language Interpreter -- Tamil (tam)	This document
TatarInterpreter	Language Interpreter -- Tatar (tat)	This document
TeluguInterpreter	Language Interpreter -- Telugu (tel)	This document
TerenoInterpreter	Language Interpreter -- Tereno (ter)	This document
TetumInterpreter	Language Interpreter -- Tetum (tet)	This document
ThaiInterpreter	Language Interpreter -- Thai (tha)	This document
TibetanInterpreter	Language Interpreter -- Tibetan (tib (B))	This document
TigreInterpreter	Language Interpreter -- Tigre (tig)	This document
TigrinyaInterpreter	Language Interpreter -- Tigrinya (tir)	This document
TimneInterpreter	Language Interpreter -- Timne (tem)	This document
TivInterpreter	Language Interpreter -- Tiv (tiv)	This document

Value	Literal Description	Reference
TlingitInterpreter	Language Interpreter -- Tlingit (tli)	This document
TokelauInterpreter	Language Interpreter -- Tokelau (tkl)	This document
TokPisinInterpreter	Language Interpreter -- Tok Pisin (tpi)	This document
TongaNyasaInterpreter	Language Interpreter -- Tonga Nyasa (tog)	This document
Tonga-TongaIslands-Interpreter	Language Interpreter -- Tonga (Tonga Islands) (ton)	This document
TsimshianInterpreter	Language Interpreter -- Tsimshian (tsi)	This document
TsongaInterpreter	Language Interpreter -- Tsonga (tso)	This document
TswanaInterpreter	Language Interpreter -- Tswana (tsn)	This document
TumbukaInterpreter	Language Interpreter -- Tumbuka (tum)	This document
TupiLanguagesInterpreter	Language Interpreter -- Tupi Languages (tup)	This document
TurkishInterpreter	Language Interpreter -- Turkish (tur)	This document

Value	Literal Description	Reference
TurkmenInterpreter	Language Interpreter -- Turkmen (tuk)	This document
TuvaluInterpreter	Language Interpreter -- Tuvalu (tvI)	This document
TuvinianInterpreter	Language Interpreter -- Tuvinian (tyv)	This document
TwiInterpreter	Language Interpreter -- Twi (twi)	This document
UdmurtInterpreter	Language Interpreter -- Udmurt (udm)	This document
UgariticInterpreter	Language Interpreter -- Ugaritic (uga)	This document
UighurUyghurInterpreter	Language Interpreter -- Uighur Uyghur (uig)	This document
UkrainianInterpreter	Language Interpreter -- Ukrainian (ukr)	This document
UmbunduInterpreter	Language Interpreter -- Umbundu (umb)	This document
UpperSorbianInterpreter	Language Interpreter -- Upper Sorbian (hsb)	This document
UrduInterpreter	Language Interpreter -- Urdu (urd)	This document

Value	Literal Description	Reference
UzbekInterpreter	Language Interpreter -- Uzbek (uzb)	This document
VaiInterpreter	Language Interpreter -- Vai (vai)	This document
VendaInterpreter	Language Interpreter -- Venda (ven)	This document
VietnameseInterpreter	Language Interpreter -- Vietnamese (vie)	This document
VolapukInterpreter	Language Interpreter -- Volapuk (vol)	This document
VoticInterpreter	Language Interpreter -- Votic (vot)	This document
WakashanLanguagesInterpreter	Language Interpreter -- Wakashan Languages (wak)	This document
WalloonInterpreter	Language Interpreter -- Walloon (wln)	This document
WarayInterpreter	Language Interpreter -- Waray (war)	This document
WashoInterpreter	Language Interpreter -- Washo (was)	This document
WelshInterpreter	Language Interpreter -- Welsh (wel (B))	This document
WesternFrisianInterpreter	Language Interpreter --	This document



Value	Literal Description	Reference
	Western Frisian (fry)	
WolaittaWolayttaInterpreter	Language Interpreter -- Wolaitta Wolaytta (wal)	This document
WolofInterpreter	Language Interpreter -- Wolof (wol)	This document
XhosaInterpreter	Language Interpreter -- Xhosa (xho)	This document
YakutInterpreter	Language Interpreter -- Yakut (sah)	This document
YaoInterpreter	Language Interpreter -- Yao (yao)	This document
YapeseInterpreter	Language Interpreter -- Yapese (yap)	This document
YiddishInterpreter	Language Interpreter -- Yiddish (yid)	This document
YorubaInterpreter	Language Interpreter -- Yoruba (yor)	This document
YupikLanguagesInterpreter	Language Interpreter -- Yupik Languages (ypk)	This document
ZandeLanguagesInterpreter	Language Interpreter -- Zande Languages (znd)	This document

Value	Literal Description	Reference
ZapotecInterpreter	Language Interpreter -- Zapotec (zap)	This document
ZazaDimiliDimlKirdkiKirmanjkiInterpreter	Language Interpreter -- Zaza Dimili Diml Kirdki Kirmanjki (zza)	This document
ZenagaInterpreter	Language Interpreter -- Zenaga (zen)	This document
ZhuangChuangInterpreter	Language Interpreter -- Zhuang Chuang (zha)	This document
ZuluInterpreter	Language Interpreter -- Zulu (zul)	This document
ZuniInterpreter	Language Interpreter -- Zuni (zun)	This document
LoJack	LoJack? Stolen Vehicle Recovery System	This document
CrowdControlSpecialist	Crowd Control Specialist	This document
MountainSearchandRescueTech	Mountain Search and/or Rescue Technical Specialist	This document
NarcoticsIdentificationKitOperator	Narcotics Identification Kit Operator	This document
Paramedic	Paramedic	This document
PortablePumpFloating	Portable Pump -- Floating	This document
PortablePumpSubmersible	Portable Pump -- Submersible	This document



Value	Literal Description	Reference
PublicInformationOfficer	Public Information Officer	This document
Telecommunicator	Public Safety Telecommunicator	This document
RadiologicTech	Radiologic Technician	This document
RadiationDetector	Victoreen Radiation Detector	This document
RegisteredNurse	Registered Nurse	This document
RescueRope	Rescue Rope	This document
SCBA	Self-Contained Breathing Apparatus	This document
Shotgun	Shotgun	This document
StructuralCollapseRescueTech	Structural Collapse Rescue Technician	This document
StructuralEngineer	Structural Engineer	This document
SWAT	SWAT Officer	This document
SwiftwaterRescueEquipment	Swift Water Rescue Equipment	This document
SwiftwaterRescueTech	Swift Water/Flood Rescue Technical Specialist	This document
TaserTrained	Taser Trained	This document
ThermalCamera	Thermal Imaging Camera	This document
VacuumWater	Vacuum / Water	This document
WaterCanineSearchTech	Water Canine Search Technician	This document
WildLandFireTools	Wildland Fire Fighting Tools	This document

## **4 Impacts, Considerations, Abbreviations, Terms, and Definitions**

The FEs exchanging the data defined in the EIDO may be physically or virtually connected to each other. The FEs may belong to one or more disparate manufacturer's systems located within the same public safety agency or within different agencies.

### **4.1 Operations Impacts Summary**

A standardized format for electronically exchanging emergency Incident information will provide stakeholders with many operational benefits. These benefits are similar to those realized when agencies implement a local or regional "CAD to CAD" exchange. Use of the EIDO at a national, regional, and local level and within communication centers themselves is critical to the implementation of NG9-1-1 (i3) compliant systems [3] .

### **4.2 Technical Impacts Summary**

As with the implementation of any technical standard, the final EIDO will have significant impact. Initially, all FE's involved in the exchange of emergency Incident information (e.g. call handling, logging, dispatch, etc.) will need to be modified to comply with EIDO transactions. Minimal impacts are expected on the ESI-net or other E9-1-1 IP based networks however they will need to be compatible with the EIDO structure in order to carry EIDOs from one FE to another.

### **4.3 Security Impacts Summary**

EIDOs carry confidential information and they must be transmitted over secure transports such as TLS (Transport Layer Security) protected TCP (Transmission Control Protocol), and only to/from i3 authenticated FEs and systems [3] . EIDOs accessible to authenticated FEs and other systems must have their contents filtered to contain only data authorized to be transmitted to those systems by the data owner's policy. Furthermore, FEs and systems that pass EIDOs or their contents along to other FEs and systems must filter those EIDO instances based on the authentication of the receiving FEs and other systems to contain only data authorized to be transmitted to those FEs and systems by the data owner's policy.

### **4.4 Recommendation for Additional Development Work**

Future versions may expand the EIDO to include new data components and data elements, provide additional allowable registry values, or modified to support additional emergency Incident related exchanges such as the transfer of a patient's medical diagnostics, administered procedures, and medical status between transporting ambulances and receiving hospitals.

10/19/2021

Page 132 of 199



**Table 4-1 Additional Development Work**

<b>Section(s)</b>	<b>Reference to future work</b>
2	Add radio channels/push to talk information
2.17, Appendix A	Include NIEM Commercial vehicle type
2, Appendix A	Adding NIEM Injury treatment type
Appendix A	Conformance with future NIEM JSON version
2	Add weapon information.
TBD	Consider using JSON-LD context for NIEM compliance.
Appendix A	Add a floor type that include floor integers.
TBD	Add a mapping between EIDO and NIEM em:EmergencyIncidentType
2	Add the concept of automaton identifier
3.1	Make TransferredTo Agency role transient
2.7,2.8	Add reason code for split/merge and Link components
2.9	Add information about how an incident is originally reported.
2.x	Add URL for media related to an Incident.

#### **4.5 Anticipated Timeline**

EIDO is an integral piece of NG9-1-1 and must be considered during implementation planning. Early implementations are anticipated considering the migration to NG9-1-1 in Canada.

#### **4.6 Cost Factors**

Significant consideration was given to the cost impact of proposing yet another “change” to 9-1-1 stakeholders. Standardizing the format of Incident information exchange, however, is critical for NG9-1-1’s true potential to be realized [3]. Absent this standard, Incident information data exchanges will continue to rely on limited, proprietary implementations that are costly and offer limited capability to share Incident information both within and between communication centers.

It should be noted that implementation of the EIDO IEPD ANS, as well as most NG9-1-1 systems, may require updates to existing public safety systems resident at communication centers.

#### **4.7 Cost Recovery Considerations**

Normal business practices shall be assumed to be the cost recovery mechanism.

#### **4.8 Additional Impacts (non-cost related)**

The information or requirements contained in this document are not expected to have additional impacts, based on the analysis of the authoring group.

#### **4.9 Abbreviations, Terms, and Definitions**

See NENA Master Glossary of 9-1-1 Terminology, NENA-ADM-000 [1], for a complete listing of terms used in NENA documents. All abbreviations used in this document are listed below, along with any new or updated terms and definitions.



Term or Abbreviation (Expansion)	Definition / Description	<b>WG Recommendations for Master Glossary:</b> <b>(THIS COLUMN WILL BE DELETED BEFORE PUBLICATION)</b> <ul style="list-style-type: none"> <li>• (OK) Master Glossary Reviewed &amp; Accepted</li> <li>• (A)dd</li> <li>• (D)elete</li> <li>• (DA)Don't add</li> <li>• (U)pdate</li> <li>• Other (text suggestions)</li> </ul>
Data Component	A structure composed of multiple Data Elements.	DA
Data Element	A unit of information composed of a name and value. The value can be a number, a boolean, a character string or a Data Component.	DA
EIDO (Emergency Incident Data Object)	A JSON-based (JavaScript Object Notation) object that is used to share emergency Incident information between and among authorized entities and systems. NENA has adopted the JSON-based EIDO for sharing Incident information among authorized NG9-1-1 entities and systems.	OK
ESInet (Emergency Services IP Network)	An ESInet is a managed IP network that is used for emergency services communications, and which can be shared by all public safety agencies. It provides the IP transport infrastructure upon which independent application platforms and core services can be deployed, including, but not restricted to, those necessary for providing NG9-1-1 services. ESInets may be constructed from a mix of dedicated and shared facilities. ESInets may be	OK

Term or Abbreviation (Expansion)	Definition / Description	<b>WG Recommendations for Master Glossary:</b> <b>(THIS COLUMN WILL BE DELETED BEFORE PUBLICATION)</b> <ul style="list-style-type: none"> <li>• (OK) Master Glossary Reviewed &amp; Accepted</li> <li>• (A) add</li> <li>• (D) delete</li> <li>• (DA) Don't add</li> <li>• (U) update</li> <li>• Other (text suggestions)</li> </ul>
	interconnected at local, regional, state, federal, national and international levels to form an IP-based inter-network (network of networks). The term ESInet designates the network, not the services that ride on the network. See <a href="#">NGCS (Next Generation Core Services)</a> .	
FE (Functional Element)	A set of software features that may be combined with hardware interfaces and operations on those interfaces to accomplish a defined task.	OK
FRC (Field Responder Client)	A device or software installed on a device such as computer, tablet or smartphone used by field responders to access public safety systems, such as to receive dispatch instructions or perform database lookups. FRCs are often colloquially referred to as "MDT" or "Mobile Data Terminals".	A
IMR (Interactive Media Response)	An automated service used to play announcements, record responses and interact with callers using any or all of audio, video and text.	OK
MDT (Mobile Data Terminal)	A computerized device used in a vehicle to exchange information between an end user	U





Term or Abbreviation (Expansion)	Definition / Description	<b>WG Recommendations for Master Glossary:</b> <b>(THIS COLUMN WILL BE DELETED BEFORE PUBLICATION)</b> <ul style="list-style-type: none"> <li>• (OK) Master Glossary Reviewed &amp; Accepted</li> <li>• (A)dd</li> <li>• (D)elete</li> <li>• (DA)Don't add</li> <li>• (U)pdate</li> <li>• Other (text suggestions)</li> </ul>
	and a communications center. MDTs are a specific type of FRC (Field Responder Client).	
Report Number	A number associated with an emergency Incident that once generated indicates that a follow up report or investigation will be associated with the Incident. May also be known as: case number, fire Incident number, department report numbers and other variations depending on the types of service agencies involved and local customs. Typically, the report number is sequential within a year and also identifies the agency for which it is issued. Within an agency, the report number is globally unique. More than one report number may be associated with a single Incident.	DA
SIP (Session Initiation Protocol)	A protocol specified by the IETF (RFC 3261) that defines a method for establishing multimedia sessions over the Internet. Used as the call signaling protocol in VoIP, NENA i2 and NENA i3.	OK



Term or Abbreviation (Expansion)	Definition / Description	<b>WG Recommendations for Master Glossary:</b> <b>(THIS COLUMN WILL BE DELETED BEFORE PUBLICATION)</b> <ul style="list-style-type: none"> <li>• (OK) Master Glossary Reviewed &amp; Accepted</li> <li>• (A)dd</li> <li>• (D)elete</li> <li>• (DA)Don't add</li> <li>• (U)pdate</li> <li>• Other (text suggestions)</li> </ul>
TCP (Transmission Control Protocol)	A communications protocol linking different computer platforms across networks. TCP/IP functions at the 3rd and 4th levels of the open system integration model.	DA
TLS (Transport Layer Security)	An IETF standard protocol that provides authentication, integrity protection, and confidentiality using mutually negotiated cryptographic capabilities and digital certificates on a connection such as TCP.	OK
URL (Uniform Resource Locator)	A URL is a type of URI specifically used for describing and navigating to a resource (e.g. <a href="http://www.nena.org">http://www.nena.org</a> )	OK

## 5 References

- [1] National Emergency Number Association. *Master Glossary of 9-1-1 Terminology*. [NENA-ADM-000.23-2020](#). Arlington, VA: NENA, approved January 20, 2020.
- [2] Internet Engineering Task Force. *Key words for use in RFCs to Indicate Requirement Levels*. S. Bradner. [RFC 2119](#), March 1997.
- [3] National Emergency Number Association. *NENA Detailed Functional and Interface Standards for the NENA i3 Solution*. [NENA-STA-010.2-2016](#) (originally 08-003). Arlington, VA: NENA, approved September 10, 2016.



- [4] National Emergency Number Association. *NENA i3 Standard for Next Generation 9-1-1*. [NENA-STA-010.3-202Y](#). Arlington, VA: NENA (forthcoming).
- [5] NIEM Program Management Office. *Introduction to the National Information Exchange Model (NIEM)*, version 0.3. Issued February 12, 2007.  
<https://reference.niem.gov/niem/guidance/introduction/0.3/niem-introduction-0.3.pdf>
- [6] Internet Engineering Task Force. *Additional Data Related to an Emergency Call*. R. Gellens, B. Rosen, H. Tschofenig, R. Marshall, J. Winterbottom. [RFC 7852](#)
- [7] Internet Engineering Task Force. *A Uniform Resource Name (URN) for Emergency and Other Well-Known Services*. H. Schulzrinne. [RFC 5031](#), January 2008.
- [8] Association of Public-Safety Communications Officials. *Public Safety Communications Common Incident Types for Data Exchange*. [APCO ANS 2.103.2-2019](#). Daytona Beach, FL: APCO, approved 2019.
- [9] Internet Engineering Task Force. *Presence Information Data Format (PIDF)*. H. Sugano, S. Fujimoto, G. Klyne, A. Bateman, W. Carr, and J. Peterson. [RFC 3863](#), August 2004.
- [10] Internet Engineering Task Force. *A Presence-based GEOPRIV Location Object Format*. J. Peterson. [RFC 4119](#), December 2005.
- [11] Internet Engineering Task Force. *GEOPRIV Presence Information Data Format Location Object (PIDF-LO) Usage Clarification, Considerations, and Recommendations*. J. Winterbottom, M. Thomson, and H. Tschofenig. RFC 5491, March 2009.
- [12] Association of Public-Safety Communications Officials. *Alarm Monitoring Company to Public Safety Answering Point (PSAP) Computer-Aided Dispatch (CAD) Automated Secure Alarm Protocol (ASAP)*. [APCO/CSAA ANS 2.101.2-2014](#). Daytona Beach, FL: APCO, approved August 5, 2014.

## 6 Exhibits

Not Applicable.

## Appendix A Required NIEM data element that need to be supported for EIDO compliance

The Person data component and the Vehicle data component both contains their respective NIEM data components. The NIEM PersonType and VehicleType also contains other NIEM data components.

In order for implementations to be interoperable, a subset of these NIEM data elements and data components must be supported by every EIDO implementation. In this context



support means that the data element must be preserved when transmitting, receiving, storing or retrieving an EIDO.

To be compliant with this standard any EIDO implementation must support the following.

## A.1 Person Type

**Table A-1 Person Type**

JSON Name	NIEM Data element	Type	Description	Comment
ageMeasure	nc:PersonAgeMeasure	nc:TimeMeasureType	A measurement of the age of a person.	
birthDate	nc:PersonBirthDate	nc:DateType	A date a person was born.	
birthLocation	nc:PersonBirthLocation	nc:LocationType	A location where a person was born.	
bloodTypeCode	j:PersonBloodTypeCode	ncic:BLTCodeType	A blood group and RH factor of a person.	
buildCode	j:PersonBuildCode	index:PersonBuildCodeType	A person's physique or body shape.	
citizenshipIso3166Alpha2Code	nc:PersonCitizenshipISO3166Alpha2Code	iso_3166:CountryAlpha2CodeType	A country that assigns rights, duties, and privileges to a person because of the birth or naturalization of the person in that country.	
clothing	j:PersonClothing	j:ClothingType	An article of clothing, dress, or attire for a person.	
complexion	nc:PersonComplexionText	nc:TextType	An appearance or condition of	clear, freckled, wrinkled



JSON Name	NIEM Data element	Type	Description	Comment
			the skin of a person.	
description	nc:PersonDescriptionText	nc:TextType	A description of a person.	
digitalImage	nc:PersonDigitalImage	nc:ImageType	A photograph or image of a person in a digital format.	
disguise	nc:PersonDisguiseDescriptionText	nc:TextType	A description of something a person wears to conceal or mislead others as to the true appearance or identity of that person.	wig, mask, glasses, uniform
ethnicityCode	j:PersonEthnicityCode	ucr:EthnicityCodeType	A cultural lineage of a person.	
eyeColorCode	j:PersonEyeColorCode	ncic:EYECODEType	A color of the eyes of a person.	
eyewearCode	j:PersonEyewearCode	ndex:PersonEyewearCodeType	A description of glasses or other eyewear a person wears.	
facialHairCode	j:PersonFacialHairCode	ndex:PersonFacialHairCodeType	A kind of facial hair of a person.	
generalAppearance	nc:PersonGeneralAppearanceDescriptionText	nc:TextType	A description of the way a person looks and is presented overall.	
hairAppearance	nc:PersonHairAppearanceText	nc:TextType	An overall appearance of	



JSON Name	NIEM Data element	Type	Description	Comment
			the hair of a person.	
hairCategory	nc:PersonHairCategoryText	nc:TextType	A kind of hair of a person, such as wavy or straight.	
hairColorCode	j:PersonHairColorCode	ncic:HAIRCodeType	A color of the hair of a person.	
hairLengthCode	j:PersonHairLengthCode	ndex:PersonHairLengthCodeType	A length of hair of a person.	
hairStyleCode	j:PersonHairStyleCode	ndex:PersonHairStyleCodeType	A style or cut of hair worn by a person.	
handedness	nc:PersonHandednessText	nc:TextType	A hand with which a person is more adept using.	left, right, ambidextrous
height	nc:PersonHeightMeasure	nc:LengthMeasureType	A measurement of the height of a person.	
injury	nc:PersonInjury	nc:InjuryType	A form of physical harm or damage sustained by a person.	
jewelry	nc:PersonJewelryDescriptionText	nc:TextType	A description of adornments a person wears.	
languageIsEnglish	nc:PersonLanguageEnglishIndicator	niem-xs:boolean	True if a person understands and speaks English; false otherwise.	
license	nc:PersonLicenseIdentification	nc:IdentificationType	An identification that references a license	This may be granted to certify a



JSON Name	NIEM Data element	Type	Description	Comment
			certification or registration of a person for some purpose.	professional occupation or skill.
isLiving	nc:PersonLivingIndicator	niem-xs:boolean	True if a person is alive; false if a person is dead.	This indicator may be useful if a person is known to be dead but the death date is unknown.
unionStatusText	nc:PersonUnionStatusText	nc:TextType	A legal status of a union between two people.	
mentalState	nc:PersonMentalStateText	nc:TextType	A mental condition of a person.	
name	nc:PersonName	nc:PersonNameType	A combination of names and/or titles by which a person is known.	
nationalIdentification	nc:PersonNationalIdentification	nc:IdentificationType	An identification that references a person within a country but is not based on fingerprint.	
nationalityCode	nc:PersonNationalityISO3166Alpha2Code	iso_3166:CountryAlpha2CodeType	A country of a person's citizenship or a country in which	



JSON Name	NIEM Data element	Type	Description	Comment
			a person is deemed a national.	
physicalFeature	nc:PersonPhysicalFeature	nc:PhysicalFeatureType	A prominent or easily identifiable aspect of a person.	
primaryLanguage	nc:PersonPrimaryLanguage	nc:PersonLanguageType	A capacity of a person for a language with which that person has the strongest familiarity.	native language. This can also be used for bi-lingual or multi-lingual people.
raceCode	j:PersonRaceCode	ncic:RACECodeType	A classification of a person based on factors such as geographical locations and genetics.	
sexCode	j:PersonSexCode	ncic:SEXCodeType	A gender or sex of a person.	
sexualOrientation	nc:PersonSexualOrientationText	nc:TextType	A target gender of the sexual interest of a person.	
skinToneCode	j:PersonSkinToneCode	ncic:SKINCodeType	A color or tone of the skin of a person.	
ssnIdentification	nc:PersonSSNIdentification	nc:IdentificationType	A unique identification reference to a living person;	In the US and Canada, this is a 9-





JSON Name	NIEM Data element	Type	Description	Comment
			assigned by a country.	digit numeric identifier. ssn, SSN, social security number, social insurance number
weight	nc:PersonWeightMeasure	nc:WeightMeasureType	A measurement of the weight of a person.	
nationalityIso3166Alpha2Code	nc:PersonNationalityISO3166Alpha2Code	iso_3166:CountryAlpha2CodeType	A country of a person's citizenship or a country in which a person is deemed a national.	
accent	nc:PersonAccentText	nc:TextType	A manner of pronunciation; a way of pronouncing words that may indicate the place of origin or social background of the speaker.	
medicalCondition	nc:PersonMedicalCondition	nc:MedicalConditionType	A state of health for a person, on-going or present.	
medicalDescription	nc:PersonMedicalDescriptionText	nc:TextType	A description of the overall	



JSON Name	NIEM Data element	Type	Description	Comment
			health of a person.	
medicationRequired	nc:PersonMedicationRequiredText	nc:TextType	A medication and dosage required for a person.	
mood	nc:PersonMoodDescriptionText	nc:TextType	A description of a state of feeling of a person.	temper, humor
physicalDisability	nc:PersonPhysicalDisabilityText	nc:TextType	A physical disability of a person.	
emergencyContact	nc:PersonEmergencyContactInformation	nc:ContactInformationType	A means of contacting someone in the event of an emergency.	

## A.2 Vehicle Type

**Table A-2 Vehicle Type**

JSON Name	Data element	Type	Description	Comment
condition	nc:ItemConditionText	nc:TextType	A state or appearance of an item.	new, used, damaged
description	nc:ItemDescriptionText	nc:TextType	A description of an item.	
owner	nc:ItemOwner	nc:EntityType	An entity which owns a property item.	property owner
ownerAppliedID	nc:ItemOwnerAppliedID	niem-xs:string	An identifier applied to an item by the owner.	A number on a car to identify it within a fleet of cars.



JSON Name	Data element	Type	Description	Comment
serialIdentification	nc:ItemSerialIdentification	nc:IdentificationType	An identification inscribed on or attached to a part, collection of parts, or complete unit by the manufacturer.	
category	nc:ItemCategoryText	nc:TextType	A kind of property item.	
colorPrimaryCode	j:ConveyanceColorPrimaryCode	ncic:VCOCodeType	A single, upper-most, front-most, or majority color of a vehicle.	
colorSecondaryCode	j:ConveyanceColorSecondaryCode	ncic:VCOCodeType	A lower-most or rear-most color of a two-tone vehicle or a lesser color of a multi-colored vehicle.	
image	nc:ItemImage	nc:ImageType	A binary representation of an image of an item.	
makeName	nc:ItemMakeName	nc:ProperNameTextType	A name of the manufacturer that produced an item.	
modelName	nc:ItemModelName	nc:ProperNameTextType	A name of a specific design or kind of item made by a manufacturer.	

JSON Name	Data element	Type	Description	Comment
modelYear	nc:ItemModelYearDate	niem- xs:gYear	A year in which an item was manufactured or produced.	
styleCode	j:VehicleStyleCode	ncic:VSTCode Type	A style of a vehicle.	
registrationPlateIdentification	j:ConveyanceRegistrationPlateIdentification	nc:IdentificationType	An identification on a metal plate fixed to a conveyance.	
isMotorized	nc:ConveyanceMotorizedIndicator	niem- xs:boolean	True if a conveyance is powered by a motor; false otherwise.	
isTowed	nc:ConveyanceTowedIndicator	niem- xs:boolean	True if a conveyance is towed; false otherwise.	
useAnsiD20Code	j:VehicleUseANSID20Code	aamva_d20:VehicleUseCodeType	A manner or way in which a vehicle is used.	
isCMV	nc:VehicleCMVIndicator	niem- xs:boolean	True if a vehicle is a commercial motor vehicle; false otherwise.	
doorQuantity	nc:VehicleDoorQuantity	niem- xs:nonNegativeInteger	A number of doors on a vehicle.	
identification	nc:VehicleIdentification	nc:IdentificationType	A unique identification for a specific vehicle.	VIN, VIN number, registration, plate



JSON Name	Data element	Type	Description	Comment
makeCode	j:VehicleMakeCode	ncic:VMACodeType	A manufacturer of a vehicle.	
modelCode	j:VehicleModelCode	ncic:VMOCODEType	A specific design or class of vehicle made by a manufacturer.	
isRental	nc:ItemRentalIndicator	niem-xs:boolean	True if an item is rented; false otherwise.	Applies to short term rental service only.
towerAssociation	nc:VehicleTowerAssociation	nc:ItemEntityAssociationType	An association between a vehicle and the entity that towed it.	
vina	j:VehicleVINAText	nc:TextType	A Vehicle Identification Number Analysis; a combination of a vehicle make and model information.	
isWanted	j:VehicleWantedIndicator	niem-xs:boolean	True if a vehicle is being searched for by law enforcement; false otherwise.	

### A.3 Date Type

**Table A-3 Date Type**

JSON Name	Data element	Type	Description	Comment
date	nc:Date	niem-xs:date	A full date.	



dateTime	nc:DateTime	niem- xs:dateTime	A full date and time.	
fiscalYear	nc:FiscalYearDate	nc:FiscalYearDateType	A year of a twelve month period that does not necessarily correspond to the calendar year.	
yearMonth	nc:YearMonthDate	niem- xs:gYearMonth	A year and month.	
marginOfError	nc:DateMarginOfErrorDuration	niem- xs:duration	A subjective assessment of the uncertainty of an estimated point by bounding an elements value with an estimated margin of error.	

#### A.4 Location Type

**Table A-4 Locataion Type**

JSON Name	Data element	Type	Description	Comment
address	nc:Address	nc:AddressType	A postal location to which paper mail can be directed.	
addressGrid	nc:AddressGrid	nc:AddressGridType	A location identified by a unit of a grid system overlaid on an area.	
area	nc:LocationArea	nc:AreaType	A location identified by geographic boundaries.	



JSON Name	Data element	Type	Description	Comment
wgs84LocationCylinder	mo:WGS84LocationCylinder	mo:WGS84LocationCylinderType	A location identified by a cylinder oriented vertically and centered on a point described with WGS84 coordinates. If it is appropriate for the radius and half-height properties to represent an error value (for example, because the event is a laser-designated target), then the true event location follows a normal distribution such that the cylinder defines the one-sigma ( $p \approx 0.67$ )(almost equal to) deviation. (A cylinder with twice the volume would be the two-sigma ( $p \approx 0.95$ )(almost equal to) deviation, etc.) Otherwise the cylinder encloses the full physical extent of the event.	
categoryCodeText	it:LocationCategoryCodeText	nc:TextType	A category of operation performed at a given Location	
categoryText	nc:LocationCategoryText	nc:TextType	A kind or functional description of a location.	
contact	nc:LocationContactInformation	nc:ContactInformationType	A set of contact information for a location.	
addressCrossStreet	nc:AddressCrossStreet	nc:CrossStreetType	A location identified by two or more streets which intersect.	NIEM uses the term CrossStreet as a location but this document uses it to denote



JSON Name	Data element	Type	Description	Comment
				proximity to a location.
description	nc:LocationDescriptionText	nc:TextType	A description of a location.	
locationLandmark	nc:LocationLandmarkText	nc:TextType	A distinguishing physical feature at a location.	
name	nc:LocationName	nc:ProperNameTextType	A name of a location.	
floorNumber	nc:LocationFloorNumberText	nc:TextType	A floor number of a location.	
uncertainty	mo:LocationUncertaintyArea	nc:AreaType	An area of uncertainty about a location.	

## A.5 Image Type

**Table A-5 Image Type**

JSON Name	Data element	Type	Description	Comment
id	nc:BinaryID	niem-xs:string	An identifier that references a binary object.	
isAvailable	nc:BinaryAvailableIndicator	niem-xs:boolean	True if a binary is available; false if it is not.	
captureDate	nc:BinaryCaptureDate	nc:DateType	A date on which a binary object is captured or created.	This is the date an image was taken, an audio file was recorded, ...
description	nc:BinaryDescriptionText	nc:TextType	A description of a binary object.	
format	nc:BinaryFormatText	nc:TextType	A file format or content type of a binary object.	



JSON Name	Data element	Type	Description	Comment
uri	nc:BinaryURI	niem- xs:anyURI	A URL or file reference of a binary object.	
size	nc:BinarySizeValue	nc:NonNegativeDecimalType	A size of a binary object in kilobytes.	
categoryText	nc:BinaryCategoryText	nc:TextType	A kind of object that has been encoded.	mug shot, driver license picture, audio confession
height	nc:ImageHeightValue	niem- xs:nonNegativeInteger	A height of an image in pixels.	
width	nc:ImageWidthValue	niem- xs:nonNegativeInteger	A width of an image in pixels.	

## A.6 Length Measure Type

**Table A-6 Length Measure Type**

JSON Name	Data element	Type	Description	Comment
doubleValue	nc:MeasureDoubleValue	niem- xs:double	A double measurement value.	
doubleRange	nc:MeasureDoubleRange	nc:DoubleRangeType	A double measurement range.	
textList	nc:MeasureTextList	nc:StringListType	A list of measurement values , all using the same measurement method/device and of the same units.	
unitText	nc:MeasureUnitText	nc:TextType	A unit that qualifies the measurement value.	
method	nc:MeasureMethodText	nc:TextType	A method used to make a measurement.	
unitCode	nc:LengthUnitCode	unece:LengthCodeType	A unit of measure of a length value.	



## A.7 Injury Type

**Table A-7 Injury Type**

JSON Name	Data element	Type	Description	Comment
categoryCode	j:InjuryCategoryCode	nc:TextType	A kind of bodily harm or injury.	
date	nc:InjuryDate	nc:DateType	A date on which an injury occurred.	In EIDO InjuryDate should include DateRange/EndDate and DateRange/StartDate
description	nc:InjuryDescriptionText	nc:TextType	A description of an injury.	
locationCode	j:InjuryLocationNDEX Code	nc:TextType	A place on the body of a person where an injury occurred.	
severity	nc:InjurySeverityText	nc:TextType	A degree of the seriousness or intensity of an injury.	

## A.8 Organization Type

**Table A-8 Organization Type**

JSON Name	Data element	Type	Description	Comment
activity	nc:OrganizationActivityText	nc:TextType	An activity that an organization is known or thought to be involved with.	Ex: law enforcement, supervision
branchName	nc:OrganizationBranchName	nc:TextType	A name of the chapter or branch by which an organization is known within a larger group of organizations.	

JSON Name	Data element	Type	Description	Comment
dayContact	nc:OrganizationDayContactInformation	nc:ContactInformationType	A means of contacting an organization during daytime hours.	
doingBusinessAsName	nc:OrganizationDoingBusinessAsName	nc:TextType	A name an organization uses for conducting business.	
emergencyContact	nc:OrganizationEmergencyContactInformation	nc:ContactInformationType	A means of contacting an organization in the event of an emergency.	
establishedDate	nc:OrganizationEstablishedDate	nc:DateType	A date an organization was started.	
eveningContact	nc:OrganizationEveningContactInformation	nc:ContactInformationType	A means of contacting an organization during evening or early night hours.	
identification	nc:OrganizationIdentification	nc:IdentificationType	An identification that references an organization.	For a school, this would be a school identifier, for a lien holder, this would be a lien holder identifier, for a court, this would be a court identifier.
localIdentification	nc:OrganizationLocalIdentification	nc:IdentificationType	An identification assigned at a local level to an organization.	
location	nc:OrganizationLocation	nc:LocationType	A location of an organization.	
name	nc:OrganizationName	nc:TextType	A name of an organization.	
nightContact	nc:OrganizationNightContactInformation	nc:ContactInformationType	A means of contacting an organization during late-night hours.	



JSON Name	Data element	Type	Description	Comment
otherIdentification	nc:OrganizationOtherIdentification	nc:IdentificationType	An alternate identification assigned to an organization.	
primaryContact	nc:OrganizationPrimaryContactInformation	nc:ContactInformationType	A preferred means of contacting an organization.	
principalOfficial	nc:OrganizationPrincipalOfficial	nc:PersonType	A chief or high ranking executive of an organization.	
status	nc:OrganizationStatus	nc:StatusType	A status of an organization.	Examples include: active, inactive
subUnit	nc:OrganizationSubUnit	nc:OrganizationType	A division of an organization.	Ex: department, group
taxIdentification	nc:OrganizationTaxIdentification	nc:IdentificationType	A tax identification assigned to an organization.	Ex: Federal Employer Identification Number, FEIN, an Employer Identification Number, EIN
abbreviation	nc:OrganizationAbbreviationText	nc:TextType	An abbreviation, acronym, or code for an organization name.	Ex: FBI, NCIC
description	nc:OrganizationDescriptionText	nc:TextType	A description of an organization.	

## A.9 Identification Type

**Table A-9 Identification Type**

JSON Name	Data element	Type	Description	Comment
id	nc:IdentificationID	niem-xs:string	An identifier.	



JSON Name	Data element	Type	Description	Comment
categoryCode	j:PersonIDCategoryCode	ncic:MNUCodeType	A kind of identifier assigned to a person.	
categoryDescription	nc:IdentificationCategoryDescriptionText	nc:TextType	A description of a kind of identification.	
effectiveDate	nc:IdentificationEffectiveDate	nc:DateType	A date an identification takes effect.	This may or may not be the issue date.
expirationDate	nc:IdentificationExpirationDate	nc:DateType	A date after which an identification is no longer valid.	
jurisdiction	nc:IdentificationJurisdiction	nc:JurisdictionType	An area, region, or unit where a unique identification is issued.	For EIDO only nc:JurisdictionText in JurisdictionType must be supported
source	nc:IdentificationSourceText	nc:TextType	A person, organization, or locale which issues an identification.	
status	nc:IdentificationStatus	nc:StatusType	A status of an identification.	Ex: valid, expired, revoked, suspended, replaced, duplicate, lost

## A.10 Status Type

**Table A-10 Status Type**

JSON Name	Data element	Type	Description	Comment
status	nc:StatusText	nc:TextType	A status or condition of something or someone.	
date	nc:StatusDate	nc:DateType	A date a status was set, effected, or reported.	



JSON Name	Data element	Type	Description	Comment
description	nc:StatusDescriptionText	nc:TextType	A description of a status or condition of something or someone.	
issuerIdentification	nc:StatusIssuerIdentification	nc:IdentificationType	An identification of a person or organization which assigns a status.	

## A.11 Address Type

**Table A-11 Address Type**

JSON Name	Data element	Type	Description	Comment
fullText	nc:AddressFullText	nc:TextType	A complete address.	Usually includes street, city, state, and zip code information. Can also include other mailing specifics such as PO Box, apartment number, or suite number.
recipientName	nc:AddressRecipientName	nc:TextType	A name of a person, organization, or other recipient to whom physical mail may be sent.	
buildingName	nc:AddressBuildingName	nc:TextType	A name of a specific building at an address to distinguish it from other buildings at the same site.	



JSON Name	Data element	Type	Description	Comment
deliveryPointId	nc:AddressDeliveryPointID	niem-xs:string	An identifier of a single place or unit at which mail is delivered.	
privateMailbox	nc:AddressPrivateMailboxText	nc:TextType	A private mailbox within a company.	mail stop code
secondaryUnit	nc:AddressSecondaryUnitText	nc:TextType	A particular unit within a larger unit or grouping at a location.	Ex: apartment number, suite number
routeName	nc:LocationRouteName	nc:TextType	A name and number of a postal route.	
street	nc:LocationStreet	nc:StreetType	A road, thoroughfare or highway.	
city	nc:LocationCityName	nc:ProperNameTextType	A name of a city or town.	
countyCode	nc:LocationCountyCode	census:USCountyCodeType	A county, parish, vicinage, or other such geopolitical subdivision of a state.	
state	nc:LocationState	nc:StateType	A state, commonwealth, province, or other such geopolitical subdivision of a country.	Only nc:LocationStateFIPS5-2Code is required to be supported in StateType
country	nc:LocationCountry	nc:CountryType	A country, territory, dependency, or other such geopolitical subdivision of a location.	Only nc:LocationCountryISO3166Alpha2Code is required to be supported in CountryType

## A.12 Area Type

Table A-12 Area Type

JSON Name	Data element	Type	Description	Comment
-----------	--------------	------	-------------	---------

10/19/2021

Page 159 of 199



wgs84LocationEllipse	mo:WGS84LocationEllipse	mo:WGS84EllipseType	A area region described by an ellipse specified by a point, major axis, minor axis and rotation, using WGS84, meters, and decimal degrees.	
wgs84LocationExternalPolygon	mo:WGS84LocationExternalPolygon	mo:WGS84ExternalPolygonType	An area region described by a polygon with no interior region, using WGS84 coordinates.	

### A.13 ContractInformation Type

**Table A-13 ContractInformation Type**

JSON Name	Data element	Type	Description	Comment
emailId	nc:ContactEmailID	niem-xs:string	An electronic mailing address by which a person or organization may be contacted.	
instantMessenger	nc:ContactInstantMessenger	nc:InstantMessengerType	A user account for an instant messaging program by which a person or organization may be contacted.	
mailingAddress	nc:ContactMailingAddress	nc:AddressType	A postal address by which a person or organization may be contacted.	
radio	nc:ContactRadio	nc:ContactRadioType	A method of contacting a person or organization by messages over a radio.	
telephoneNumber	nc:ContactTelephoneNumber	nc:TelephoneNumberType	A telephone number for a telecommunication device by which a person or organization may be contacted.	





JSON Name	Data element	Type	Description	Comment
entity	nc:ContactEntity	nc:EntityType	An entity that may be contacted by using the given contact information.	
entityDescription	nc:ContactEntityDescriptionText	nc:TextType	A description of the entity being contacted.	This could be a title or function of the person with the given contact information.'
informationDescription	nc:ContactInformationDescriptionText	nc:TextType	A description of the contact information.	
responder	nc:ContactResponder	nc:PersonType	A third party person who answers a call and connects or directs the caller to the intended person.	

#### A.14 Entity Type

**Table A-14 Entity Type**

JSON Name	Data element	Type	Description	Comment
organization	nc:EntityOrganization	nc:OrganizationType	An organization capable of bearing legal rights and responsibilities.	
person	nc:EntityPerson	nc:PersonType	A person capable of bearing legal rights and responsibilities.	

#### A.15 CrossStreet Type

**Table A-15 Cross Street Type**

JSON Name	Data element	Type	Description	Comment
-----------	--------------	------	-------------	---------



description	nc:CrossStreetDescriptionText	nc:TextType	A description of a street intersection.	NIEM uses the term CrossStreet as a location but this document uses it to denote proximity to a location.
relativeLocation	nc:CrossStreetRelativeLocation	nc:RelativeLocationType	A location of something relative to a street intersection.	

## A.16 PhysicalFeature Type

**Table A-16 PhysicalFeature Type**

JSON Name	Data element	Type	Description	Comment
generalCategory	nc:PhysicalFeatureGeneralCategoryText	nc:TextType	A general kind of physical feature.	Ex: scar, mark, tattoo, missing limb
categoryCode	j:PhysicalFeatureCategoryCode	nc:TextType	A specific kind of physical feature.	
description	nc:PhysicalFeatureDescriptionText	nc:TextType	A description of a physical feature.	
image	nc:PhysicalFeatureImage	nc:ImageType	A digital image of a physical feature.	
location	nc:PhysicalFeatureLocationText	nc:TextType	A location on a person's body of a physical feature.	

## A.17 MedicalCondition Type

**Table A-17 MedicalCondition Type**

JSON Name	Data element	Type	Description	Comment
conditionText	nc:MedicalConditionText	nc:TextType	A state of health, on-going or present.	Ex: scar, mark, tattoo, missing limb
cause	nc:MedicalConditionCauseText	nc:TextType	A trigger that can initiate the onset of a medical condition.	Ex: drug, food, allergen
description	nc:MedicalConditionDescriptionText	nc:TextType	A description of a medical condition.	
isPresent	nc:MedicalConditionPresentIndicator	niem-xs:boolean	True if a medical condition currently exists; false otherwise.	
severity	nc:MedicalConditionSeverityText	nc:TextType	A degree to which a medical condition is affecting a person.	
dateRange	nc:MedicalConditionDateRange	nc:DateRangeType	A date range for the start and end of a medical condition.	

## Appendix B Mapping between vCard and NIEM Person Type

**Table B-1 Mapping between vCard and NIEM Person Type**

vCard Data Properties	NIEM Data Element
General Properties:	



<b>vCard Data Properties</b>	<b>NIEM Data Element</b>
BEGIN	No Mapping
END	No Mapping
SOURCE	No Mapping
KIND	No Mapping
XML	No Mapping
Identification Properties:	-
FN	nc:PersonFullName
N	nc:PersonSurName
	nc:PersonGivenName
	nc:PersonMiddleName
	nc:PersonNamePrefixText
	nc:PersonNameSuffixText
NICKNAME	im:PersonNickName
PHOTO	nc:PersonDigitalImage
BDAY	nc:PersonBirthDate
ANNIVERSARY	No Mapping
GENDER	j:PersonSexCode
ADR	nc:AddressPrivateMailboxText
	nc:AddressSecondaryUnitText
	nc:LocationStreet
	nc:LocationCityName
	nc:LocationCityName
	nc:LocationPostalCode
	nc:LocationCountry
TEL	nc:FullTelephoneNumber
EMAIL	nc:Email
IMPP	nc:ContactInstantMessenger
LANG	nc:PersonPrimaryLanguage
TZ	No Mapping
GEO	geo:LocationGeospatialPoint
TITLE	em:JobTitleOrRoleName
ROLE	em:JobTitleOrRoleName
ORG	nc:OrganizationName



<b>vCard Data Properties</b>	<b>NIEM Data Element</b>
MEMBER	nc:OrganizationBranchName
	nc:OrganizationPrimaryContactInformation
RELATED	No Mapping except for emergency contact: nc:PersonEmergencyContactInformation
CATEGORIES	nc:PersonDescriptionText
NOTE	nc:PersonDescriptionText
PRODID	No Mapping
REV	No Mapping
SOUND	No Mapping
UID	nc:PersonOtherIdentification
CLIENTPIDMAP	No Mapping
URL	nc:URLID
VERSION	No Mapping
KEY	nc:ContactWebsiteURI
FBURL	nc:ContactWebsiteURI
CALADRURI	nc:ContactWebsiteURI
CALURI	nc:ContactWebsiteURI



## Appendix C OpenAPI Schema

The schemas defined in this document are described using OpenAPI V3, with JSON-ld exchange schemas for NIEM conformance. This section contains the OpenAPI interface definition as a YAML object. Only the component section of this schema is relevant to the EIDO JSON object described in this document. The normative reference can be found in NENA git hub repository available here <https://github.com/NENA911/EIDO-JSON>.

```
openapi: 3.0.2
info:
  title: Emergency Incident Data Object (EIDO)
  description: >-
    A standard format and content definition for exchanging emergency incident
    related data.
  contact:
    name: NENA
    email: commleadership@nena.org
  version: '1.0.0'
servers:
  - url: 'http://localhost/'
  - url: 'https://localhost/'
paths:
  '/EIDO/{IncidentId}':
    get:
      tags:
        - Dereference
      summary: Dereference an EIDO reference
      operationId: GetEIDO
      parameters:
        - name: IncidentId
          in: path
          required: true
          description: The id of the incident represented in the EIDO
```

10/19/2021

Page 166 of 199



```
    schema:
      type: string
  responses:
    '200':
      description: OK
      content:
        application/json:
          schema:
            $ref: '#/components/schemas/EmergencyIncidentDataObjectType'
components:
  schemas:
    ReferenceType:
      title: Reference
      required:
        - $ref
      properties:
        $ref:
          type: string
          description: The $id value of the referenced data component
    PrologueType:
      title: Prologue
      required:
        - $id
        - lastUpdateTimeStamp
        - updatedByAgencyReference
      type: object
      properties:
        $id:
          type: string
          description: Globally unique identifier of the data component
        lastUpdateTimeStamp:
          type: string
```



description: Timestamp of the last time the data component was  
modified

format: date-time

updatedByAgencyReference:

\$ref: '#/components/schemas/ReferenceType'

description:

Owning Agency Identifier. This includes private and public  
providers. Agencies are globally unique.

updatedByAgentReference:

\$ref: '#/components/schemas/ReferenceType'

description:

A globally unique identifier of the agent or automaton that updated  
the data component last

description: A common prologue on each data component

AgencyType:

title: Agency Type

description:

A data type for an organization that owns or is otherwise related to an  
emergency incident.

allOf:

- \$ref: '#/components/schemas/PrologueType'
- type: object

required:

- agencyRoleDescriptionRegistryText
- agencyType

properties:

agencyJcard:

type: string

description:

The agency's contact information.

agencyRoleDescriptionRegistryText:

type: array

10/19/2021

Page 168 of 199





registry description: Shall only contains values present in the Agency Role

items:

type: string

incidentOwningAgencyIndicator:

type: boolean

description: True if an agency owns the emergency incident; false

otherwise

agencyType:

type: array

items:

type: string

description: One or more members of a list of available provider and agency types. The agency types are taken from the IANA urn:emergency:service:responder registry and the subregistries defined for that registry. Values exclude the "urn:emergency:service:responder." prefix. Example values: "police.federal.fbi", "fire.forest", "poison\_control" including: Law Enforcement, Fire, EMS, Consolidated Dispatch, Ambulance Company, etc. Agency Types are defined in the IANA urn:emergency:service:responder registry

notesReference:

type: array

description:

Reference to a Notes Data Component. Contains optional alphanumeric text further describing the agency.

items:

\$ref: '#/components/schemas/ReferenceType'

AgentType:

title: Agent Type

description: A data type for information about agents (e.g., call takers, dispatchers, supervisors, responding emergency resources, etc.) and automated systems acting as agents that are involved in an incident.

allOf:

- \$ref: '#/components/schemas/PrologueType'
- type: object

required:



```
- agentRoleRegistryText
- agencyReference
properties:
  agentJcard:
    type: string
    description:
      The agent's contact information.
  agentWorkstationPositionIdentification:
    type: string
    description:
      The workstation position ID within the agent's agency.
  agentRoleRegistryText:
    type: array
    items:
      type: string
    description: Shall only contains values present in the Agent Role
registry
  agencyReference:
    $ref: '#/components/schemas/ReferenceType'
    description: Linked element type is AgencyType
  notesReference:
    type: array
    description:
      Reference to a Notes Data Component. Contains optional
      alphanumeric text further describing the agent.
    items:
      $ref: '#/components/schemas/ReferenceType'
IncidentMergeDirectionCodeSimpleType:
  title: Incident Merge Direction Code Simple Type
  type: string
  description: A data type for a code list for a direction of a merge or
split.
  example: REPLACING
```

10/19/2021

Page 170 of 199



```
enum:
  - REPLACING
  - REPLACED
  - SPLIT
MergeInformationType:
  title: MergeInformationType
  description: A data type for information about a merged or split incident.
  allof:
    - $ref: '#/components/schemas/PrologueType'
    - type: object
    required:
      - incidentMergeDirectionCode
      - incidentTrackingIdentifier
    properties:
      incidentTrackingIdentifier:
        type: string
        description:
          The Incident Tracking Identification of the Incident
          that is being merged with, or split from the Incident.
      incidentMergeDirectionCode:
        $ref: '#/components/schemas/IncidentMergeDirectionCodeSimpleType'
LinkDirectionCodeSimpleType:
  title: Link Direction Code Simple Type
  type: string
  description: A data type for a code list for a kind of link performed.
  example: PARENT
  enum:
    - PARENT
    - CHILD
    - RELATED
    - UNLINK
LinkInformationType:
```



```
title: Link Information Type
description: A data type for information about a linked incident.
allOf:
  - $ref: '#/components/schemas/PrologueType'
  - type: object
  required:
    - incidentTrackingIdentifier
    - linkDirectionCode
  properties:
    incidentTrackingIdentifier:
      type: string
      description: A globally unique emergency incident identifier.
    transactionReasonText:
      type: string
      description: Free format narrative description of the reason for
the link
    involvedAgencyReference:
      $ref: '#/components/schemas/ReferenceType'
      description:
        Agencies involved with the linked incident. Must be populated if
        the agency sending the EIDO is not involved with the linked
        incident.
    linkDirectionCode:
      $ref: '#/components/schemas/LinkDirectionCodeSimpleType'
NotesType:
  title: Notes Type
  description: A data type for notes and comments associated with an
incident.
  allOf:
    - $ref: '#/components/schemas/PrologueType'
    - type: object
    required:
      - notesActionComments
```



```
properties:
  notesActionComments:
    type: string
    description: A note about an incident created by an agent; in
HTML5 format.
  agentReference:
    $ref: '#/components/schemas/ReferenceType'
    description: Linked element type is AgentType
AdditionalDataType:
  title: Additional Data Type
  description:
    A data type for additional information associated with an incident call,
    location, or person.
  allOf:
    - $ref: '#/components/schemas/PrologueType'
    - type: object
    properties:
      additionalDataByReferenceUrl:
        type: string
        description: A URL that references additional data associated with
a call.
      additionalDataByValue:
        type: string
        description: Additional data associated with a call.
      urlPurpose:
        type: string
        description: Purpose that accompanied the URL. For example, the
purpose parameter sent with the URL in the Call-Info headers.
      notesReference:
        type: array
        description:
          Notes and comments associated with an incident. Linked elements
          type are NotesType
```



```
    items:
      $ref: '#/components/schemas/ReferenceType'
LocationInformationType:
  title: Location Information Type
  description: A data type for a location associated with an incident.
  allOf:
    - $ref: '#/components/schemas/PrologueType'
    - type: object
  required:
    - locationTypeDescriptionRegistryText
  properties:
    locationTypeDescriptionRegistryText:
      type: string
      description: Shall only contains values present in the Location
type registry
    locationByValue:
      type: string
      description:
        A type for an external adapter for a Presence Information Data
        Format-Location Object (PIDF-LO).
    locationDescriptionText:
      type: string
      description: Optional text further describing the location type.
    locationByReferenceUrl:
      type: string
      description:
        A URL where a location associated with an incident can be
        dereferenced.
      format: uri
    crossStreetByValue:
      type: array
      description:
```



A nearest cross street to an incident's location in PIDF-LO format.

items:

type: string

crossStreetByReferenceUrl:

type: array

description:

A URL where a nearest cross street to an incident's location can be dereferenced.

items:

type: string

intersectingStreetByValue:

type: array

description: An additional street, that with the location forms an intersection, in PIDF-LO format.

items:

type: string

intersectingStreetByReferenceUrl:

type: array

description:

A URL where an additional street, that with the location forms an intersection, can be dereferenced.

items:

type: string

cellTowerSectorId:

type: string

description:

The nearest cell tower and sector/face of the tower receiving a call associated with an incident.

additionalDataReference:

type: array

description:



Additional information associated with an incident call,  
location, or person. Linked elements type are AdditionalDataType  
items:  
\$ref: '#/components/schemas/ReferenceType'  
notesReference:  
type: array  
description:  
Notes and comments associated with an incident. Linked elements  
type are NotesType  
items:  
\$ref: '#/components/schemas/ReferenceType'  
PersonInformationType:  
title: Person Information Type  
description: A data type for information about a person associated with an  
incident.  
allof:  
- \$ref: '#/components/schemas/PrologueType'  
- type: object  
required:  
- personIncidentRoleRegistryText  
properties:  
ncPersonComponent:  
\$ref: 'NIEMComponents/nc.yaml#/components/schemas/ncPersonType'  
personIncidentRoleRegistryText:  
type: array  
description: Shall only contains values present in the Person Role  
registry  
items:  
type: string  
callIdentifier:  
type: array  
description: Call Identifier of the calls this person was involved  
on.

10/19/2021

Page 176 of 199





```
    items:
      type: string
  additionalDataReference:
    type: array
    description:
      Additional information associated with an incident call,
      location, or person. Linked elements type are AdditionalDataType
    items:
      $ref: '#/components/schemas/ReferenceType'
  locationReference:
    type: array
    description:
      A location associated with an Person. Linked elements type is
      LocationInformationType
    items:
      $ref: '#/components/schemas/ReferenceType'
  notesReference:
    type: array
    description:
      Reference to a Notes Data Component. Contains optional
      alphanumeric text further describing the person.
    items:
      $ref: '#/components/schemas/ReferenceType'
  callBackReference:
    $ref: '#/components/schemas/ReferenceType'
    description:
      Reference to a call back data component. Identifies how the
person
      described in this data component can be called back.
  DispositionType:
    title: Disposition Type
    description:
```



A data type for incident disposition information entered or updated by a dispatch agent and/or a responding emergency resource.

allOf:

- \$ref: '#/components/schemas/PrologueType'
- type: object

required:

- dispositionCommonRegistryCode

properties:

dispositionCommonRegistryCode:

type: string

description:

Shall only contains values present in the Common Disposition  
Code registry

dispositionPrimaryIndicator:

type: boolean

description:

True if the common disposition is the primary disposition for an  
agency for an incident; false otherwise.

dispositionCategoryText:

type: string

dispositionDescriptionText:

type: string

notesReference:

type: array

description:

Reference to a Notes Data Component. Contains optional  
alphanumeric text further describing the incident.

items:

\$ref: '#/components/schemas/ReferenceType'

VehicleInformationType:

title: Vehicle Information Type

allOf:

10/19/2021

Page 178 of 199



```
- $ref: '#/components/schemas/PrologueType'
- type: object
  required:
    - vehicleRelationshipType
    - vehicleRelationshipTimeStamp
  properties:
    ncVehicleComponent:
      $ref: 'NIEMComponents//nc.yaml#/components/schemas/ncVehicleType'
    vehicleRelationshipType:
      type: array
      description:
        Information about a vehicle associated with an incident. Shall
        only contains values present in the Vehicle Relationship Type
        registry
      items:
        type: string
    vehicleRelationshipTimeStamp:
      type: string
      description:
        The date and time that the relationship of the vehicle to the
        incident was established
      format: date-time
    additionalDataReference:
      type: array
      description:
        Additional information associated with a vehicle. Linked
        elements type is AdditionalDataType
      items:
        $ref: '#/components/schemas/ReferenceType'
    locationReference:
      type: array
      description:
```



```
    A location associated with an vehicle. Linked elements type is
    LocationInformationType
    items:
        $ref: '#/components/schemas/ReferenceType'
    notesReference:
        type: array
        description:
            Reference to a Notes Data Component. Contains optional
            alphanumeric text further describing the vehicle.
        items:
            $ref: '#/components/schemas/ReferenceType'
IncidentInformationType:
    title: Incident Information Type
    description:
        A data type for general information about emergency incidents gathered
        by emergency agents, responding emergency resources, from reporting
        parties (callers), and devices reporting emergency incidents.
    allOf:
        - $ref: '#/components/schemas/PrologueType'
        - type: object
        required:
            - incidentTypeCommonRegistryText
    properties:
        incidentTypeInternalCode:
            type: string
            description:
                An alphanumeric code indicating the category of the incident.
                This is the internal code used by the local agencies involved in
                the incident.
        incidentTypeInternalText:
            type: string
            description:
```



Textual description indicating the category of the incident.

This is the internal text used by the local agencies involved in the incident.

incidentTypeCommonRegistryText:

type: string

description: Shall only contains values present in the Incident

Type registry

incidentStatusInternalText:

type: array

description:

An internal code used by a local agency for a status of an incident.

items:

type: string

incidentStatusCommonRegistryText:

type: array

description:

Shall only contains values present in the Incident Status registry

items:

type: string

internalIncidentId:

type: string

agentReference:

type: array

description: Linked elements type is AgentType

items:

\$ref: '#/components/schemas/ReferenceType'

locationReference:

type: array

description:

A location associated with an incident. Linked elements type is



```
LocationInformationType
items:
  $ref: '#/components/schemas/ReferenceType'
personReference:
  type: array
  description:
    Information about a person associated with an incident. Linked
    elements type is PersonInformationType
  items:
    $ref: '#/components/schemas/ReferenceType'
vehicleReference:
  type: array
  description:
    Information about a vehicle associated with an incident. Linked
    elements type is VehicleInformationType
  items:
    $ref: '#/components/schemas/ReferenceType'
documentIdentification:
  type: array
  items:
    type: string
reportNumberType:
  type: string
incidentPriorityInternalText:
  type: string
  description:
    An internal value used by a local agency for the priority of an
    incident.
incidentCommonPriorityNumber:
  type: integer
  description: A globally unique priority of an incident.
  format: int32
```



```
beatOrDispatchGroupText:
  type: string
  description: A beat or dispatch group that contains an incident.
dispositionComponent:
  type: array
  description:
    Incident disposition information entered or updated by a
    dispatch agent and/or a responding emergency resource.
  items:
    $ref: '#/components/schemas/DispositionType'
notesReference:
  type: array
  description:
    Reference to a Notes Data Component. Contains optional
    alphanumeric text further describing the incident.
  items:
    $ref: '#/components/schemas/ReferenceType'
UpdatedCBNType:
  title: Updated CBN Type
  description:
    A data type for additional telephone numbers and SIP equivalents that
    can be used to contact the individual that made a call associated with
    an incident.
  allof:
    - $ref: '#/components/schemas/PrologueType'
    - type: object
    required:
      - updatedCbnIdentifierUri
  properties:
    updatedCbnIdentifierUri:
      type: string
      description:
```



A telephone number or SIP equivalent of a reporting party described in the parent call.

format: uri

updatedCbnCallerDescription:

type: string

description:

Additional descriptive text about an updated caller call back number such as the days and hours to use it and the type of number (e.g., work, home, friend, etc.).

CallInformationType:

title: CallInformationType

description:

A data type for call information about an incident received and collected by an agent.

allOf:

- \$ref: '#/components/schemas/PrologueType'
- type: object

required:

- callStateRegistryText
- standardPrimaryCallType
- direction
- callStartTimestamp

properties:

relatedCallIdentifier:

type: array

description:

CallIdentifier of calls that are related to this call. Eg Callbacks

items:

type: string

queueIdentifier:

type: string

10/19/2021

Page 184 of 199





description:  
An identifier of a queue where the call is currently on.

standardPrimaryCallType:  
type: string  
description:  
Values limited to those in the LogEvent CallTypes registry with  
"Primary" classification.

standardSecondaryCallType:  
type: string  
description:  
Values limited to those in the LogEvent CallTypes registry with  
"Secondary" classification.

localCallType:  
type: string  
description:  
Locally defined call type.

direction:  
type: string  
enum:  
- incoming  
- outgoing  
- internal  
description:  
"incoming" means received by the EIDO sender, "outgoing" means  
sent by the EIDO sender and "internal" means both caller and  
recipient are within the EIDO sender.

additionalDataReference:  
type: array  
description:  
Additional information associated with an incident call,  
location, or person. Linked elements type is AdditionalDataType



```
items:
  $ref: '#/components/schemas/ReferenceType'
callStartTimestamp:
  type: string
  description: Date and time stamp of when the call was received.
  format: date-time
answerDate:
  type: string
  description: A date and time stamp on which the call was answered
by an agent.
  format: date-time
callStateRegistryText:
  type: string
  description: Current call status (when the EIDO was created) from
the available call statuses in the "Call States" registry i.e., callBegin,
callAnswered, callEnd, partyAdd , etc. Values limited to those in the IANA
CallStates registry.
callBackReference:
  $ref: '#/components/schemas/ReferenceType'
  description:
    Reference to a call back data component. Identifies how the
caller
    described in this data component can be called back.
verstat:
  type: string
  description:
    Value of the verstat parameter. Required if known.
sipIdentity:
  type: string
  description:
    Content of the SIP identity header. Required if known.
agentReference:
  type: array
  description: Linked elements type is AgentType
```

10/19/2021

Page 186 of 199



```
    items:
      $ref: '#/components/schemas/ReferenceType'
locationReference:
  type: array
  description:
    A location associated with an incident. Linked elements type is
    LocationInformationType
  items:
    $ref: '#/components/schemas/ReferenceType'
personReference:
  type: array
  description:
    Information about a person associated with an incident. Linked
    elements type is PersonInformationType
  items:
    $ref: '#/components/schemas/ReferenceType'
notesReference:
  type: array
  description:
    Contains optional alphanumeric text further describing the call.
    Linked elements type are NotesType
  items:
    $ref: '#/components/schemas/ReferenceType'
CallbackType:
  title: Callback Type
  description:
    This data component is used to exchange information about
    how to contact the Incident's reporting parties.
  allOf:
    - $ref: '#/components/schemas/PrologueType'
    - type: object
      properties:
```



```
callbackInformationUri:
  type: array
  description:
    Information that enables agents and responders to call
    back. URI(s) found in the P-Asserted-Identity header if provided
    else the URI in the From header.
  items:
    type: string
deviceContactHeader:
  type: string
  description:
    Content of the device contact header. Information that
    enables agents and responders to possibly reach (call back) the
    device that initiated the call.
updatedCbn:
  description:
    Identifies additional telephone numbers and SIP
    equivalents that can be used to contact.
    $ref: '#/components/schemas/UpdatedCBNTYPE'
EmergencyResourceType:
  title: Emergency Resource Type
  description: A data type for a resource (vehicle, person [foot patrol],
    organizational unit such as a squad or strike team, and other emergency
    responder configurations) that responds to an emergency incident.
  allof:
    - $ref: '#/components/schemas/PrologueType'
    - type: object
    required:
      - agentReference
      - emergencyResourceTypeCommonRegistryText
      - primaryUnitStatusRegistryText
      - resourceAttributeRegistryText
```



```
- secondaryUnitStatusRegistryText
properties:
  eta:
    type: string
    description: Timestamp of when the unit is expected to reach it's
destination
    format: date-time
  emergencyResourceTypeCommonRegistryText:
    type: string
    description:
      Shall only contains values present in the Emergency Resource
      Type registry
  emergencyResourceTypeInternalText:
    type: string
    description: A local code for an emergency resource type.
  resourceAttributeRegistryText:
    type: array
    description:
      Shall only contains values present in the Resource Attribute
      registry
    items:
      type: string
  emergencyResourceName:
    type: string
    description:
      Common name of the emergency resource.
  primaryUnitStatusRegistryText:
    type: string
    description:
      Shall only contains values present in the Primary Unit Status
      registry
  secondaryUnitStatusRegistryText:
```



```
type: array
description:
  Shall only contains values present in the Secondary Unit Status
  registry
items:
  type: string
notesReference:
type: array
description:
  Reference to a Notes Data Component. Contains optional
  alphanumeric text further describing the incident.
items:
  $ref: '#/components/schemas/ReferenceType'
unitStatusInternal:
type: array
description: A local code for a status of an emergency resource.
items:
  type: string
agentReference:
type: array
description:
  Information about agents (e.g., call takers, dispatchers,
  supervisors, responding emergency resources, etc.) and automated
  systems acting as agents that are involved in an incident.
  Linked elements type is AgentType
items:
  $ref: '#/components/schemas/ReferenceType'
unitLocationReference:
  $ref: '#/components/schemas/ReferenceType'
  description: Linked elements type is LocationInformationType
unitDestinationReference:
  $ref: '#/components/schemas/ReferenceType'
```



```
    description: Linked elements type is LocationInformationType
  personReference:
    type: array
    description:
      Information about a person associated with an incident. Linked
      elements type is PersonInformationType
    items:
      $ref: '#/components/schemas/ReferenceType'
  vehicleReference:
    type: array
    description:
      Information about a vehicle associated with an incident. Linked
      elements type is VehicleInformationType
    items:
      $ref: '#/components/schemas/ReferenceType'
DispatchInformationType:
  title: Dispatch Information Type
  description: A data type for dispatch information related to an incident.
  allOf:
    - $ref: '#/components/schemas/PrologueType'
    - type: object
  properties:
    agencyReference:
      $ref: '#/components/schemas/ReferenceType'
    description:
      Reference to an AgencyType. Agency that was dispatched
      through action performed in this data component.
    agentReference:
      $ref: '#/components/schemas/ReferenceType'
    description:
      Linked elements type is AgentType. Identifies the agent that
      completed the dispatch operation described
```



```
emergencyResourceReference:
  type: array
  description:
    A resource (vehicle, person [foot patrol], organizational unit
    such as a squad or strike team, and other emergency responder
    configurations) that responds to an emergency incident. Linked
    elements type is EmergencyResourceType
  items:
    $ref: '#/components/schemas/ReferenceType'
notesReference:
  type: array
  description:
    Contains optional alphanumeric text further describing the
dispatch.
    Linked elements type are NotesType
  items:
    $ref: '#/components/schemas/ReferenceType'
AlarmsSensorsType:
  title: AlarmsSensorsType
  description:
    A data type for alarms and sensors information associated with an
    incident.
  allof:
    - $ref: '#/components/schemas/PrologueType'
    - type: object
  properties:
    csaaAlarmInformation:
      type: string
      description:
        Central Station Alarm Association (CSAA) data associated with an
        incident.
    alarmUrl:
```





```
    type: string
    description:
      A URL that references Central Station Alarm Association (CSAA)
      data associated with an incident.
    format: uri
  agentReference:
    $ref: '#/components/schemas/ReferenceType'
    description: Linked elements type is AgentType
  notesReference:
    type: array
    description:
      Contains optional alphanumeric text further describing the
dispatch.
      Linked elements type are NotesType
    items:
      $ref: '#/components/schemas/ReferenceType'
EmergencyIncidentDataObjectType:
  title: Emergency Incident Data Object Type
  description:
    A data type for an information exchange containing emergency incident
    related data.
  allOf:
    - $ref: '#/components/schemas/PrologueType'
    - type: object
    required:
      - eidoVersion
      - issuingElementIdentification
      - agencyComponent
  properties:
    eidoVersion:
      type: string
      description: Version of the EIDO structure.
```



```
enum:
  - '1.0'
issuingElementIdentification:
  type: string
  description:
    An identifier of a functional element that created the EIDO
    instance.
mergeComponent:
  type: array
  description: Information about a merged or split incident.
  items:
    $ref: '#/components/schemas/MergeInformationType'
linkComponent:
  type: array
  description: Information about a linked incident.
  items:
    $ref: '#/components/schemas/LinkInformationType'
incidentComponent:
  $ref: '#/components/schemas/IncidentInformationType'
  description:
    General information about the emergency incident gathered by
    emergency agents, responding emergency resources, from reporting
    parties (callers), and devices reporting emergency incidents.
callComponent:
  type: array
  description:
    Call information about an incident received and collected by an
    agent.
  items:
    $ref: '#/components/schemas/CallInformationType'
callbackComponent:
  type: array
```



```
description:
  Contains information about how to call a person.
items:
  $ref: '#/components/schemas/CallbackType'
dispatchComponent:
  type: array
  description: Dispatch information related to an incident.
  items:
    $ref: '#/components/schemas/DispatchInformationType'
alarmsSensorsComponent:
  type: array
  description: Alarms and sensors information associated with an
incident.
  items:
    $ref: '#/components/schemas/AlarmsSensorsType'
agencyComponent:
  type: array
  description: All agencies referenced in this document are listed
here
  items:
    $ref: '#/components/schemas/AgencyType'
agentComponent:
  type: array
  description: All agents referenced in this document are listed
here
  items:
    $ref: '#/components/schemas/AgentType'
notesComponent:
  type: array
  description: All notes referenced in this document are listed here
  items:
    $ref: '#/components/schemas/NotesType'
additionalDataComponent:
```



type: array  
description: All additional data referenced in this document are  
listed here  
items:  
\$ref: '#/components/schemas/AdditionalDataType'  
locationComponent:  
type: array  
description:  
All location informations referenced in this document are listed  
here  
items:  
\$ref: '#/components/schemas/LocationInformationType'  
personComponent:  
type: array  
description:  
All person informations referenced in this document are listed  
here  
items:  
\$ref: '#/components/schemas/PersonInformationType'  
vehicleComponent:  
type: array  
description:  
All vehicle informations referenced in this document are listed  
here  
items:  
\$ref: '#/components/schemas/VehicleInformationType'  
emergencyResourceComponent:  
type: array  
description:  
All emergency resources information referenced in this document  
are listed here  
items:



```
    $ref: '#/components/schemas/EmergencyResourceType'
  '@context':
    type: object
    description: JSON-LD context
    properties:
      '@vocab':
        type: string
        enum:
          - './JSON-
LD_Contexts/EmergencyIncidentDataObjectType.jsonld'
```



## ACKNOWLEDGEMENTS

The National Emergency Number Association (NENA) Agency Systems Committee, EIDO JSON Working Group developed this document.

NENA Board of Directors Approval Date: 10/19/2021

NENA recognizes the following industry experts and their employers for their contributions to the development of this document.

Members	Employer
Michael Smith, Agency Systems Committee Co-Chair	Equature/DSS Corp.
Rick Blackwell, ENP, Agency Systems Committee Co-Chair	Greenville County, SC
Amy McDowell, ENP, Working Group Co-Chair	Greenville County, SC
Etienne Paquet, Working Group Co-Chair	Komutel
Tony Dunsworth, Note-Taker	City of Alexandria, VA
Brandon Abley, ENP	NENA
Jamie Algatt	Rapid Deploy
Roy Artin	E-Comm E9-1-1 Vancouver
Bernard Brabant	Consultant
Guy Caron	Bell Canada
Rakhee Duneja	Toronto Police Service ON
Simon Farrow	Stancil
Pierre Foucault	Québec 9-1-1 Agency
Ryan Fouts	Rapid Deploy
Rebecca Green, ENP	City of Murfreesboro, TN
Diane Harris	Zetron
Ryan Keeling	Bell Canada
James Kinney	INdigital
Alain Labrosse	Montreal Police QC CA SPVM
Darrell Marsh, P.Eng, PMP	Nova Scotia Emergency Management Office NS
Roger Marshall	Comtech Telecommunications Corporation
Richard Maw	RAM Solutions
Steven McDowall	Carbyne, Inc
Steve McMurrer, ENP	Fairfax County, VA

10/19/2021

Page 198 of 199



Members	Employer
George Michallas	MicroAutomation, Inc
Dan Mongrain	Motorola Solutions, Inc
Richard Muscat	Bexar Metro 9-1-1 Network District, TX
Katy Myers, ENP	Norcomm Public Saefty Communications, Inc
Justin Prahar	ECats
Theresa Reese	Ericsson, Inc
Brian Rosen	Consultant
Jerry Schlesinger, PMP	Intelligent Systems, Inc
Brooks Shannon	Rapid Deploy
Johanne Tanguay	Montreal Police QC CA SPVM
Matt Tenold	City of Lynwood, WA
Henry Unger	Pulsiam
Ravi Valavandan	City of Calgary AB CA
Michael Vislocky	Network Orange, Inc
Lisa Wirtanen	AT&T
Michael Salonish	DataTech911

### Special Acknowledgements:

Delaine Arnold, ENP, Committee Resource Manager, has facilitated the production of this document through the prescribed approval process.

The EIDO JSON Working Group Working Group is part of the NENA Development Group that is led by:

- Wendi Rooney, ENP, and Jim Shepard, ENP, Development Steering Council Co-Chairs
- Brandon Abley, Technical Issues Director
- April Heinze, ENP, PSAP Operations Director

